

PREPARING FOR WAR: THE STRUCTURE AND CONDUCT OF
PEACETIME MANEUVERS

BY
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DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.

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ABSTRACT

There exists a potential requirement for the U.S. Army to conduct peacetime maneuvers as it transitions from a decade of counterinsurgency operations to an unknown future. This study will examine two historical examples to suggest how the Army should structure and conduct such peacetime maneuvers. The first example is an analysis of how General George C. Marshall structured and conducted the 1941 Louisiana Maneuvers to mobilize and train the Army, from small unit to army level, preparing it for combat against the German army in World War II. The second example analyzes General Gordon Sullivan's Modern Louisiana Maneuvers of the early 1990's, which he used it to train the Army Staff, identify better practices for modernization, and prepare the Army for 21st century warfare. Each of these historical examples seeks to answer the following question: How do the structure and conduct of peacetime maneuvers influence future combat effectiveness? The study does not answer questions about the doctrine, training, organization, and equipment the Army requires to meet its uncertain future. It does, however, take as a premise that peacetime maneuvers are necessary for at least partial answers to those questions. The study concludes that in order to have the optimal chance for future combat effectiveness, the Army's peacetime maneuvers should be structured and conducted in accordance with the following general guidelines: the Army must structure comprehensive exercises from small-units to the Department of the Army Staff; conduct those exercises are realistically; and, use multiple scenarios to prepare for the various types of warfare it could be called upon to fight in an uncertain future.

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CHAPTER 1 INTRODUCTION

Do not regard what you do only as 'preparation' for doing the same thing more fully or better at some later time. Nothing is ever done twice. There is no next time. This is of special application to war. There is but one time to win a battle or a campaign. It must be won the first time.

General George S. Patton

On 3 October 1973, Michael Howard received the Royal United Service Institute for Defence Studies' Chesney Memorial Gold Medal for his contribution to the study of military science.¹ During his acceptance speech titled, "Military Science in an Age of Peace," Howard stated that it did not matter if a military service's doctrine were wrong when hostilities commenced, but it did matter that it corrected that doctrine quickly.² Howard's assessment was that everyone starts even and wrong. He further stated that military forces normally enter into a war with similar doctrines and weapons. The victor normally will be the force that can quickly learn from its mistakes and adjust itself to the new environment. His recipe for overcoming mistakes in the next war was to have the ability to think about the unexpected problems. One of the implications of Howard's speech is that military institutions can and should conduct peacetime exercises to help them pierce the "fog of peace."³

Howard's lecture suggests three issues for the today's Army to consider. First, it implies that that during peacetime the Army must not expect that preparing for the next war will occur on its own. It is common for armies to rely on the doctrine and technology of the last war they fought. Howard noted that "Peacetime is like a sailor navigating by dead reckoning. You have left the terra firma of the last war and are extrapolating from the experiences of that war. The greater the distance from the last

¹ Michael Howard, "Military Science in an Age of Peace," *RUSI Journal*, 119 (March 1974): 3-11. Sir Michael Howard is a widely published British historian and defense analyst. He received the Chesney Memorial Gold Medal for his contribution to the theory and practice of military science. Howard's receipt of this award put him in the same company as Basil Liddell Hart, Alfred Thayer Mahan, Julian Corbett, and J.F.C Fuller.

² Michael Howard, "Military Science in an Age of Peace," 6.

³ Michael Howard, "Military Science in an Age of Peace," 4.

war, the greater become the chances of error in the extrapolation.”⁴

Howard also voiced the concern that experience from past hostilities is easily lost. To alleviate this concern, military institutions must rely on the experience of their leadership and civilians who fought the previous war to ensure that doctrine and technology are appropriate for the foreseeable future. After a decade of counterinsurgency wars in the Middle-East and South Asia, the U.S. Army must consider what changes it will make to be ready for the next war. Waiting for the next war to test new doctrine and technology is not a viable option.

Finally Howard implies that without some ideas as to what the future of war will be, training of personnel, new technology, and doctrine may be set back in their ability to conduct operations effectively on the future battlefield. This directly correlates to the idea that no one, civilian or military, has a fully accurate idea of what the next war will be like or what will be required to fight it. Nevertheless, today’s Army must work intelligently to prepare for an uncertain future.

Brief background of the Issue

In light of Howard’s observations, there exists a requirement for the U.S. Army to conduct peacetime maneuvers as it transitions from a decade of counterinsurgency operations to an unknown future. This study will examine two historical examples to suggest how the Army should structure and conduct such peacetime maneuvers. The first example is an analysis of how General George C. Marshall structured and conducted the 1941 Louisiana Maneuvers to mobilize and train the Army, from small unit to army level, preparing it for combat against the German Army. He used the maneuvers to identify competent leaders, evaluate new doctrine and organizational changes, and experiment new armored formations. The second analyzes General Gordon Sullivan’s Modern Louisiana Maneuvers of the early 1990’s, which he used simulations to train the Army Staff, identify better practices for modernization, and preparing the Army for 21st century warfare.

⁴ Michael Howard, “Military Science in an Age of Peace,” 4.

Research Question

This study seeks to answer the following question: How do the structure and conduct of peacetime maneuvers influence future combat effectiveness? This question is significant because peacetime maneuvers are important ways in which Armies work to pierce Howard's "fog of peace". That was true in 1940. It was true in the early 1990's. And it remains true in the early 21st century.

Methodology

To answer the research question, this study will examine two historical examples. The Louisiana Maneuvers of 1941 were conducted during the pre-WW II era in which the Army was transitioning in organizational and technical capabilities to conduct mid-twentieth century warfare. The Modern Louisiana Maneuvers of the 1990's were designed to help the Army prepare for warfare in the late twentieth and early twenty-first centuries. These experiences will be evaluated by asking four inter-related questions. What was the purpose of conducting the maneuvers? How well were they structured? How well were they conducted? What impact did they have in helping the Army prepare for future operations? The study ends by synthesizing the insights gained from the two historical examples into a series of historically valid conclusions about how the structure and conduct of maneuvers influence future combat effectiveness. It then explores the implications of these conclusions for the contemporary Army in light of the types of challenges it might face over the next ten years.

Description of the Evidence

This study uses a variety of evidence to identify causal relationships between the Army's structure and conduct of peacetime maneuvers and its proficiency in subsequent combat. Books and studies such as *The U.S. Army GHQ Maneuvers of 1941* by Christopher Gabel and *A History of Large-Scale Maneuvers in the United States, 1935-1964* by Jean Moenk will provide a review of pre-WW II Army organizations and how

they structured maneuvers to prepare for large-scale warfare against Germany in WW II.⁵ To determine if the maneuver were successful, historical works such as *Defeat at Kasserine: American Armor Doctrine, Training, and Battle Command in Northwest Africa, World War II* by Mark Calhoun and Bruce Watson's *Exit Rommel: The Tunisian Campaign 1942-1943*, will be reviewed.⁶ The second historical example, known as The Modern Louisiana Maneuvers, provides an analysis of large-scale maneuvers in the post-Desert Storm era and how training of the 1990's prepared Army organizations for future combat, such as that experienced during Operation Iraqi Freedom. Studies such as *The 1994 Louisiana Maneuvers: Is Back to the Future What Our Army Needs?* by William Moyer, will inform this portion of the thesis.⁷ James Yarrison's *The Modern Louisiana Maneuvers* provides an analysis of how leadership decisions, effects of technology, training centers, and future threats developed training models that are still in place today.⁸ Documents such as Army TRADOC 525 series pamphlets and the current National Security Strategy will be examined to determine scenarios the Army must consider as it structures and conducts contemporary exercises. Finally, the thesis will examine contemporary U.S. Army publications, such as the *Army's Force Posture 2012: The Nation's Force of Decisive Action*, in order to look ahead to how future training might be structured and conducted to prepare for the threats of the mid-term future.⁹

Significance/Potential Value of the Question and the Answer

⁵ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941* (Washington D.C.: Center of Military History), 1992 and Jean R. Moenk, *A History of Large-Scale Army Maneuvers in the United States, 1935-1964* (Fort Monroe, VA: US Continental Army Command), 1969.

⁶ Mark Calhoun, *Defeat at Kasserine: American Armor Doctrine, Training, and Battle Command in Northwest Africa, World War II* (Fort Leavenworth KS, 2003) and Bruce Watson, *Exit Rommel: The Tunisian Campaign, 1942-1943* (Westport, CT: Praegar Publishers, 1999).

⁷ William Moyer, *The 1994 Louisiana Maneuvers: Is Back to the Future What Our Army Needs?* (School of Advanced Military Studies, United States Army Command and General Staff College, Fort Leavenworth, KS, Second Term AY 91-92).

⁸ James L. Yarrison, *The Modern Louisiana Maneuvers*, Date Published Unknown.
http://www.history.army.mil/html/books/Modern_Louisiana_Maneuvers/The_Modern_Louisiana_Maneuvers.pdf. (Accessed 5 November 2012).

⁹ Honorable John McHugh and General Raymond Odierno. *Army Posture 2012: The Nation's Force of Decisive Action*, February 2012.
https://secureweb2.hqda.pentagon.mil/VDAS_ArmyPostureStatement/2012/ (Accessed 22 December 2012).

The central logic of the study is to establish causal connections between the structure and conduct of maneuvers on the one hand and the validity of decisions about tactical organization and Army Staff capabilities made on the basis of these maneuvers on the other hand. Establishing such connections should allow Army leaders to structure and conduct peacetime exercises in ways that will enhance the probability of future battlefield success.

Definitions

Mid-Term Future – is defined as the time-frame of two-to-fifteen years. Army Regulation 1-1, *Planning, Programming, Budgeting and Execution System*, establishes the guidelines for the Army's time-line to forecast funding and allocate resources to conduct training exercises.¹⁰ TRADOC Pamphlet 525-3-0, *The Army Capstone Concept, Operational Adaptability: Operations under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict, 2016-2028*, provides the authority for this definition, as the Army determines the appropriate application of available resources to overcome adaptive enemies and accomplishing challenging missions in the time-frame of 2016-2028.¹¹

Maneuvers are simulated battles that replicate the fog and friction of real war. They are conducted to discover the strengths and weaknesses of existing and emerging doctrine, organization, equipping, training, and leadership and to acquaint participants with at least some of the realities of combat.¹²

Road Map of the Argument

Chapters 2, The Louisiana Maneuvers of 1941: Preparing for WW II and Chapter 3, The Modern Louisiana Maneuvers of the 1990's: Preparing for an Uncertain Future

¹⁰ Army Regulation 1-1, *Planning, Programming, Budgeting and Execution* (Headquarters Department of the Army, Washington D.C., 30 January 1994), Paragraph 2-9, 15. In the 2- to 15-year midterm, long range macro estimates give way to a specified size, composition, and quality of divisional and support forces. Derived from joint strategic planning and intermediate objectives to achieve long range goals, this base force provides the planning foundation for program requirements.it

¹¹ TRADOC Pamphlet 525-3-0, *The Army Capstone Concept, Operational Adaptability: Operations under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict, 2016-2028* (U.S. Training and Doctrine Command, Fort Monroe, VA 21 December 2009), 5.

¹² Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 3.

will provide two historical examples in which the Army conducted peacetime maneuvers to prepare for the “next war.” Both chapters will follow a similar format in analyzing the Army’s context and objectives in structuring and conducting peacetime maneuvers. The analysis will examine the preparation required to conduct the maneuvers, the conduct and consequences of the maneuvers, and the implications of those maneuvers for preparing the Army for future combat. The key questions asked in both chapters will be the following:

1. What were the strategic context of and the rationale for establishing the maneuvers?
2. What were the maneuver’s objectives?
3. What was the structure of the maneuvers?
4. What pre-maneuver guidance was given for how they would be conducted?
5. What was the analytical process for evaluating the results?
6. What organizational decisions were made to prepare for future combat?
7. What happened in subsequent combat that indicated either the validity or invalidity of decisions about how the maneuvers were structured and conducted?
8. How did the structure and conduct of the maneuvers help or not help the Army prepare for Future war?

Chapter 2 will highlight the strategic context in which the War Department of the late 1930’s and early 1940’s prepared for war. As the conflict in Europe escalated, the Army began to reassess its ability to mobilize and train its organizations to confront the threat of the German panzer forces. The Louisiana Maneuvers were structured to study three major areas: the effectiveness of new division formations, the ability of the corps and division commanders to command large bodies of troops, and the effectiveness of emerging organizations and weapons against demonstrated German capabilities.¹³

Chapter 3 studies a more contemporary example of peacetime maneuvers, as they were structured after Operation Desert Storm, the Army’s first large-scale war since

¹³ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 23.

Vietnam. The maneuvers were designed to gain insights about how to train and organize Army units using computer simulations; to instruct the Department of the Army Staff (ARSTAF) in predicting future force requirements; and to prepare the Army for 21st century warfare. The review of three General Headquarters exercises and TRADOC's doctrinal changes, will demonstrate the Army's approach to preparing itself for an uncertain future. General Gordon Sullivan, the Army chief of Staff, would call these maneuvers the Modern Louisiana Maneuvers.

Chapter 4, Conclusions and Implications, will draw together the findings of the two historical studies and assess the causal relationships between the structure and conduct of peacetime maneuvers and future combat capability. The end result will be a series of historically informed insights about "best practices" and errors to avoid instructing and conducting peacetime maneuvers.

The Implications will first examine a broad outline of the types of challenges the Army of 2013-2024 will take in the mid-term future. It will offer answers to the following questions:

1. What should be the purposes for conducting future maneuvers?
2. How should future maneuvers be structured?
3. How should future maneuvers be conducted?
4. How should the results be analyzed?

Limitations of the Study

The study is not designed to answer questions about the doctrine, training, organization, and equipment the Army requires to meet an uncertain future. It does, however, take as a premise that peacetime maneuvers are necessary for at least partial answers to those questions. And, more importantly, it will offer insights about how such maneuvers should be structured and conducted so that the Army's answers to those questions will, in Howard's words, be "not too badly wrong."¹⁴

The starting point for my investigation into how the Army should structure and conduct its maneuvers to prepare for future war must be a review of what insights the past has offered. Our first examination of the past takes us back to the late 1930's.

¹⁴ Michael Howard, "Military Science in an Age of Peace", 7.

CHAPTER 2

THE LOUISIANA MANEUVERS OF 1941: PREPARING FOR WWII

Countless minor incidents – the kind you can never really foresee – combine to lower general performance, so that one always falls short of the intended goal.

Carl von Clausewitz

The U.S. Army's decision to conduct peacetime maneuvers in 1941 resulted from several events that developed after September 1939.

First, the outbreak of World War II in Europe by Germany's attack of Poland on 1 September 1939 led President Franklin D. Roosevelt and General George C. Marshall, Chief of Staff, U.S. Army, to recognize that the Army was unprepared to conduct large-scale combat. Based on this awareness, Roosevelt initiated the Protective Mobilization Plan of 1939 – 1941. Roosevelt stated that the plan was designed to deal with a "limited national emergency . . . for the purpose of strengthening our national defense within the limits of peacetime authorizations."¹ The plan's objective was to establish a small, combat-effective army to handle national emergencies with approximately 1,225,000 officers and men consisting of Regular and National Guard units, as well as the required logistical formations. The Army's leadership recognized the opportunity presented by the mobilization plan to prepare its organization for future combat. Under the President's plan, the budgetary constraints that had constricted large-scale, combined-arms training during the 1920's were lifted. The threat of becoming drawn into war in Europe was in the foreseeable future, and the Army wanted to avoid repeating failures in preparation that it had experienced before World War I.

Second, General Marshall understood that there were very few qualified corps and division commanders who were fully qualified to lead the growing force. This was based in part on his own experiences during World War I as a staff member of the American Expeditionary Forces. To his dismay, poor leadership decisions at corps and division

¹ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941* (Washington D.C.: Center of Military History, 1992), 9.

level before the Muese-Argonne Campaign had resulted in excessive casualties.² Many of the Regular Army senior leaders in 1939 were junior officers during World War I and had no experience in commanding large bodies of troops. This situation reminded General Marshall of an incident that had occurred during his World War I experience. He candidly remembered during an interview that a First Division officer had received orders for movement into Muese-Argonne and was unsure how to deploy his troops. Marshall later described the situation to a close colleague as follows: “Well, as the orders he [the First Division officer] had worked with probably never exceeded a regiment and probably most of his life had been a battalion or company, [and] we were now talking about hundreds of thousands of troops, general confusion on the roads, another big battle pending, and it was rather absurd, or to be expected.”³

The National Defense Act of 1920 had authorized an Army of 280,000 soldiers. Primarily due to fiscal constraints, the Regular Army was organized into pre-World War I battalion-sized units. It consisted of approximately 190,000 enlisted men, with no corps or field army headquarters to command them.⁴ When the Protective Mobilization Plan was initiated, the Army increased its numbers to over 1.4 million, while combining Regular and activated National Guard units into divisions, corps, and eventually field armies. Army leaders recognized that they would require additional experience in handling these newly formed large units in the field. This would require preparation of command echelons to control division-and-corps-level maneuvers.⁵ In short, General Marshall believed with good reason that the Army did not have the people, the

² Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*. 5. The Muese-Argonne campaign or commonly known as the Battle of the Argonne Forest, was the largest commitment of American forces in World War I and resulted in the deadliest battle for them. General Marshall equated this to the poor training that the Army received prior to entering into WW I. He used this knowledge and his experiences of 1918 to conduct and structure small, notional training exercises for the Regular and National Guard units within the Army during the Interwar years.

³ Interview number 7 with George C. Marshall for Forrest Pogue, April 11, 1957, Larry I. Bland and Joellen K. Bland, eds., *George C. Marshall Interviews and Reminiscences for Forrest C. Pogue* (Lexington Virginia: George C. Marshall research Foundation, 1986), 223.

⁴ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*. 8.

⁵ Jean R. Moenk, *A History of Large-Scale Army Maneuvers in the United States, 1935-1964*, (Fort Monroe, VA: US Continental Army Command, 1969), 5.

instructors, or the resources to handle and train large units properly.⁶

Finally, in comparison to the German army, which had demonstrated its capability in a lightning-like defeat of Poland, military leaders considered their units outdated and incapable of conducting modern war. Thus, General Marshall selected Lieutenant General Lesley McNair as the director of training and organized the General Headquarters (GHQ) to establish a training program for the mobilization of the untrained army. The training program began with individual-level combat training and small-unit exercises, proceeded to a series of command post exercises, then to corps maneuvers against a division or another corps, and finally to field-army maneuvers. This progression enabled the Army leadership to exercise new organizational structures and test new ideas in relatively realistic combat situations.

During this time, the Army was undergoing major organizational change from the square divisions of four regiments to triangular divisions of three regiments. The square divisions were a product of the World War I requirement to absorb heavy losses and to continue fighting in trench warfare. These divisions were composed of two brigades with two regiments each. Square divisions allowed the Army to fight with power, endurance, shock action, and easy passage of lines but offered little in the way of flexibility.⁷ In 1935, the Army began to evaluate the modernization of its organizations. The development of a provisional infantry division using the triangular design, which had been adopted by several foreign armies, was established in 1937. This construct sought to enhance the ability of the division to maneuver and to increase its flexibility. The new formation provided commanders three regiments, habitually employed as two regiments in line or two echeloned, followed by a third in reserve, and adequate firepower to support their maneuvers. In 1939, the provisional construct was adopted for the entire army, but it was not fully implemented until 1941.

A second transformation centered on equipment. The changes involved modernizing the World War I horse-borne cavalry into a mechanized force consisting of

⁶ Interview number 10 with George C. Marshall for Forrest Pogue, January 22, 1957, Larry I. Bland and Joellen K. Bland, eds., *George C. Marshall Interviews and Reminiscences for Forrest C. Pogue* (Lexington Virginia: George C. Marshall research Foundation, 1986), 301.

⁷ CSI Report No. 14, *Sixty Years of Reorganizing for Combat: A Historical Trend Analysis* (Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, KS, December 1999), 3 <http://carl.army.mil/download/csipubs/sixty.pdf>, (Accessed 15 January 2013).

tanks and motorized vehicles, upgrading World War I munitions and weapons, and increasing logistical capabilities. Tanks were first introduced in World War I as a support element for the infantry. Many armor advocates argued that masses of large armor forces could become decisive on future battlefields.⁸ The U.S. Army began its modernization in the late 1930's and established the first mechanized brigade, 7th Cavalry Brigade (Mechanized), in 1938. By 1940, the armor elements were organized into their own Armored Force and became a separate arm under I Armored Corps and the 1st and 2nd Armored Divisions.⁹

Preparation and Structure

Beginning in December 1939, General McNair and the GHQ structured and initiated the largest peacetime training maneuvers ever conducted in the United States. Uncertainty plagued the GHQ concerning the structure and conduct for the optimal size of peacetime maneuvers, levels of commands to be evaluated, and the types of units and logistics support required for determining success. Through the arduous work of the GHQ, 1.4 million troops were mobilized, trained, and equipped to support the Protective Mobilization Plan.¹⁰

The Department of the Army established training guidelines and a time-line to mobilize and train a combat-effective force by September 1941. The guidelines directed mobilization regulations, tables of allowance, and technical manuals. The publications were catalogued in *Field Manual 21-6 List of Publication for Training*.¹¹ The Protective Mobilization Plan of 1939 required a two-year time-line to mobilize Regular Army and National Guard units with the initial provision that the National Guard and initial draftees would demobilize beginning in September 1941. During the two-year period,

⁸ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, pg. 23. The German blitzkrieg into Poland divided American officers on the use of mechanization in war. Many of the officers still valued the horse-borne cavalry and some believed that the German capabilities of their Panzer units could not be replicated. However after the defeat of the French forces, Generals Adna Chaffee and Bruce Magruder, as well as Colonel George S. Patton suggested that the Army recognize and develop its own Armor branch.

⁹ CSI Report No. 14, *Sixty Years of Reorganizing for Combat: A Historical Trend Analysis*, 9.

¹⁰ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, pg. 44. The maneuvers resulted in successfully training four field armies, nine traditional corps, one armored corps, twenty-seven infantry divisions, four armored divisions, two and half cavalry divisions, and fifty-four combat aviation units.

¹¹ War Department. *FM 21-6, List of Publications for Training* (Washington D.C.: United States Printing Office, 1941), 1, http://www.easy39th.com/files/FM_21-6_List_of_Publications_for_Training_1941.pdf. (Accessed January 30, 2013).

commanders were required to conduct one-to-two-month, corps-level training exercises after their division-level exercises were complete and culminate their training with corps-versus-corps or corps-versus-division maneuvers. Simultaneously, the GHQ continued planning for army-versus-army maneuvers to train and evaluate field armies in battle-like conditions prior to the demobilization of the National Guard.¹²

In anticipation of being drawn into the war in Europe and supporting the requirements directed in the Protective Mobilization Plan, the GHQ had to deal with several training requirements. The most difficult requirement was locating training areas in which division, corps, and field armies could conduct large-scale, force-on-force maneuvers. After some time spent in reconnaissance and coordination with local authorities, training areas were established in the Louisiana/East Texas, Middle Tennessee, the Carolinas, Oregon, and California/Arizona, each selected to represent different operational environments in Europe.¹³ Each area would allow commanders and their units to conduct different levels of training, ranging from division to corps-level maneuvers. The largest area chosen was the Louisiana/East Texas training location, consisting of over 2.4 million acres or over 30,000 square miles, allowing field armies to conduct and support large-scale, force-on-force maneuvers.¹⁴

Additionally, General McNair recognized inadequacies in developing specialized leaders and troops for mechanized warfare. One example consisted of breaking the mentality of the horsed-cavalry leaders and introducing them to a mechanized army that exemplified speed, surprise, and shock, comparable to the characteristics of Germany's panzer divisions. The maneuvers presented an opportunity for the Army to refine, build, and train General John Pershing's 1918 autonomous tanks corps into the I Armored Corps of World War II. One of the early American armor advocates, General Adna

¹² Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 15. The Protective Mobilization Plan mandated that after the Army reached its 1.4 million troop strength of Regular and National Guard units, they would maintain those numbers for one year beginning in July of 1941. The National Guard would begin their drawdown starting in September 1941.

¹³ Jean R. Moenk, *A History of Large-Scale Army Maneuvers in the United States, 1935-1964*, 10. Selecting and developing training areas resulted in budgetary decisions requiring national approval. Obtaining training area resulted in the Army using contracts with the local population to obtain land, fuel, and other logistical resources utilized to support maneuvering units. As the maneuvers ended in 1941, training areas such as Fort Polk, Louisiana and Fort Irwin, California became permanent locations for future large-scale maneuvers.

¹⁴ Jean R. Moenk, *A History of Large-Scale Army Maneuvers in the United States, 1935-1964*, 8.

Chaffee, expressed his views to Congress, stating “the role of an armored division in the conduct of highly mobile ground warfare, particularly offense in character, by a self-sustained unit of great power and mobility, composed of specially equipped troops . . . whose accomplishment will effect to the maximum the total destruction of the enemy.”¹⁵ Whether General Chaffee’s vision could be realized in practice, however, was an open question that could be partially answered by the GHQ maneuvers.

Pre-Maneuver Guidance

Beginning in September 1941, Large-scale maneuvers of army-versus-army units were conducted in the largest American training area ever developed. Of the four U.S. field armies, Second and Third Armies were selected to conduct the initial maneuvers. The culminating army-versus-army maneuvers consisted of a fifteen-day exercise to evaluate the combat effectiveness of army organizations, assess leaders, and validate emerging army doctrine concerning the development of armored units and their combined-arms capabilities.

The GHQ considered the maneuvers to be vital to the outcome of future battles and campaigns. This belief led General McNair and his staff to develop a rule book, later designated as *Field Manual 105-5 Umpire Manual*, which established guidelines to ensure realistic training simulating the conditions that units might experience during actual combat. The manual emphasized the use of umpires to evaluate tactical progress of units based on strength, position, and firepower of opposing units involved, without interfering with the ability of the unit to conduct movement.¹⁶ Umpires were assigned to each infantry company-level unit, battalion headquarters, and other divisional support units such as engineers and artillery. Their primary function during any engagement would be to determine which units could advance and which units would give ground.¹⁷

¹⁵ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 26.

¹⁶ FM 105-5 Field Manual, *Umpire Manual* (Washington D.C.: United States Printing Office, 23 April, 1942), 2. This manual was published after the 1941 maneuvers, however the guidelines established within the manual were established by General McNair and the GHQ. The publication of this document was to facilitate future umpiring during future training exercises.

¹⁷ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 46. Umpires during the maneuvers followed a set of guidelines developed by Lieutenant General Lesley McNair. These guidelines were written and approved by the General Headquarters Staff and was titled *GHQ Umpire Manual*. The manual was written so as to allow freedom of maneuver, limited constraints that had to be applied by the umpires, and some basic intelligence for the each opposing force as it planned for their maneuvers.

The umpires were technically and tactically skilled professionals who adjudicated actions of units during the maneuvers. Unlike modern-day maneuvers, which use computers and other forms of tracking capabilities, umpires had to rely on their tactical skills to monitor the battle as the scenario developed.

General McNair envisioned a two-phase training program that carefully integrated and progressively prepared individuals and units for the large-scale maneuvers. Phase One consisted of the mobilization training program (MTP). The training program focused on the development of the individual recruits and officers as they entered Army, and small-unit tactics before conducting combined-arms training. New recruits and officers underwent individual basic training as they entered the Army. Following basic training, recruits entered into specialized areas, such as infantry, artillery, or logistics. Meanwhile, officers were provided the opportunity to attend service schools operated by the various combat arms, while senior officers attended courses established by the Command and General Staff School. The second phase of the program focused on the development of the units and the ability to operate within a combined-arms environment, eventually operating within a trained infantry division. After the divisions had completed this portion of their training, they were combined into corps and field armies, which later participated into the Army-level maneuvers. Collectively, the program represented a Army major initiative, as training had never before been conducted above the division level.¹⁸

Conduct of Maneuvers

Training of field armies and their subordinate units consisted of a series of maneuvers designed to prepare army organizations for combat. The maneuvers of the Second and Third Armies will provide examples of how the large-scale maneuvers were executed by providing a phase-by-phase overview of their actions during September 1941.

Second Army, totaling 130,000 men, constituted the Red Force, commanded by Lieutenant General Ben Lear, while Third Army, totaling 270,000 men, represented the Blue Force, commanded by Lieutenant General Walter Krueger. In addition, there were

¹⁸ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 17-19.

approximately 1,000 combat and observation aircraft, as well as the V Corps Engineers to prepare the 30,000 square miles for the use of the Louisiana/Texas training area. The preparation for the maneuvers by V Corps occurred simultaneously, as Second and Third Army divisions and corps conducted their training exercises at other training areas during late 1940 and early 1941.

Phase I: 15-19 September 1941. The first large-scale, army-versus-army maneuvers began on 15 September 1941 in Louisiana and East Texas. During this phase, which was to last until 19 September, General Lear's Red Forces, consisting of two infantry corps, one armored corps, totaling eight divisions, of which two were triangular, three square, one cavalry, and two armored, were located in northern Louisiana around Shreveport and the Red River region. His opponent, General Krueger's Blue Force, consisted of two corps, including ten divisions, one of which was triangular, eight square, and one reinforced cavalry, as well as a provisional tank group. GHQ also allocated the Blue Force three provisional anti-tank groups in order to evaluate their tactical effectiveness against units resembling those being employed by German army. The Blue Force was positioned in southern Louisiana in the Lake Charles and De Ridder regions.

GHQ initiated Phase One by providing both forces offensive orders, with the expectation that there would be meeting engagement in central Louisiana. These orders afforded flexibility to the commanders in maneuvering their respective forces in accordance with their plans and minimal guidance from GHQ. Over the first five days, both forces conducted several significant engagements throughout Louisiana and east Texas. The Blue forces were ultimately considered the victor by Lieutenant General McNair and the GHQ.

Phase II: 24 - 28 September 1941. Phase Two began on 24 September with GHQ reconstituting both armies and issuing each a new mission. The Red Force lost its armored corps and one of its armored divisions, but it was provided two of the three provisional anti-tank groups. Blue Force was given the additional armored elements, consisting of the I Armored Corps Headquarters and 2nd Armored Division. Red Force was ordered to establish a defense of Shreveport, LA, while Blue Force would begin its offensive mission from bases in the Lafayette region.

General Lear's plans for the defense of Shreveport involved a series of delaying

and retrograde actions, denying the Blue Force the ability to launch a coordinated attack and capture Shreveport. Part of the Red Force's initial success was based on the use of engineers to destroy railroads, bridges, and other key convoy routes. General Krueger's plan was to use his front-line infantry divisions to fix the Red forces, and then use his army reserve to make a final strike to defeat them. He decided to make use of I Armored Corps as the Blue reserve and potentially employ it to engage Red armor units in a decisive engagement. But in the event, the Blue Force failed to penetrate the Red Force's defenses, General Krueger's chief of staff, then Colonel Dwight Eisenhower, developed an envelopment plan using the Army's armored reserve, 2nd Armored Division, commanded by Major General George Patton. General Patton's division executed a road march over 300 miles through Eastern Texas, successfully gaining access into Shreveport and engaging unsuspecting elements of the Red Force, while the remaining Blue Force units continued their assault in Louisiana. At the end of Phase Two, Red Force was being engaged on three fronts and on the verge of being overrun by the Blue Force. At this point, due to time limits, General McNair called an end to the maneuvers.

Analysis

Collectively, both phases of the maneuvers enabled the GHQ to address three areas of concern: to determine if triangular divisions offered better maneuverability than square divisions; to determine if anti-tank doctrine and organizations would enhance combat effectiveness; and to evaluate higher-echelon leadership, particularly at the corps and divisions levels.

Feelings about which formation, square versus triangular, would best suit the Army were mixed. Lieutenant General Hugh Drum, commander of First Army, advocated keeping the square divisions, arguing the triangular formations lacked staying power in sustained combat, also noting that during the maneuvers units such as the 45th Division, a square formation, was one of the best maneuvering units of the exercise.¹⁹

¹⁹ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 125. General Drum argued for the square division, primarily due to his personal experiences in World War I as the First Army chief of staff, where he planned the American Expeditionary Force (AEF) offensive against St. Mihiel. He preferred the slow-methodical infantry-artillery operations to the bold cut and thrust of the blitzkrieg, which primarily came from the triangular formations. His experiences would also extend to supporting General McNair's anti-tank doctrine.

On the other side, Major General Oscar Griswold, commander of IV Corps, advocated a combination of both, stating that square divisions maintained several desirable features that triangular formations lacked.²⁰ Advocates for the triangular formations, primarily observers and commanders of the infantry divisions, favored the triangular formation, as it afforded them more maneuverability in the maneuvers through the incorporation of three maneuver elements and one fire-support element.²¹

During the maneuvers, there were incidents that General McNair considered failures, originating from commanders not adhering to doctrine. One example was the utilization of the provisional anti-tank groups. General McNair considered the use of anti-tank weapons during the maneuvers a great success, as their defensive capabilities proved to be extremely effective against armor units. During a Phase One engagement, Red armored forces under General Patton were routed by Blue anti-tank groups, hindering his 2nd Armored Division's movement to the south, which in turn facilitated the advancement of the Blue Force north into Red territory. However, it was later determined that the division and regimental anti-tank elements were effective when combined with armor and infantry firepower, producing more kills on the other hand, the provisional anti-tank groups were deemed ineffective as an independent force.²² This finding was primarily due to their lack of employment during the maneuvers, as both General Lear and Krueger, utilized them as part of their reserves and did not employ them solely in a defensive role as doctrine directed.

The maneuvers also revealed a number of leadership deficiencies. General McNair noted that leaders failed to use adequate reconnaissance and security procedures, issued complex orders, lacked understanding of their organizational capabilities, established overly broad fronts, and failed to employ combined arms properly.²³ Observers and umpires echoed his concerns, stating that commanders lacked a clear understanding of the emerging armor doctrine and were unable to command combined-

²⁰ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 186-187. General Griswold commanded IV Corps, a mix of division square and triangular formations, during the Carolina Maneuvers against General Drums, First Army, primarily made up of anti-tank and armor formations. General Griswold found that both formations added flexibility within his plans and maneuvering during the exercises.

²¹ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 11.

²² Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 89.

²³ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 88. These areas identified within General McNair's assessment would arise again during the North African campaign.

arms engagements effectively. General Patton even noted that within his own 2nd Armored Division that “We still fail to use every weapon every time.... Each time we fight with only one weapon we when we should could use several weapons, we are not winning a battle, we are making fools of ourselves.”²⁴

A wide variety of people observed the maneuvers. They ranged from President Roosevelt, to a multitude of military leaders across the services, to the national media. GHQ observers were crucial to the overall success of the maneuvers. They provided critical feedback to General McNair and his staff to determine if units were prepared to conduct the maneuvers, demonstrated the ability to integrate new doctrine, and captured lessons learned for future maneuvers. The observers also assessed the units’ overall combat effectiveness. Observers reports were compiled at the completion of the maneuvers and presented to the War Department for the appropriation of resources with which to conduct future maneuvers. One key observer, General Marshall, emphasized the importance of maneuvers to a U.S. Senator by stating, “I want the mistake [made] down in Louisiana, not over in Europe, and the only way to do this thing is to try it out, and if it doesn’t work, find out what we need to make it work.”²⁵

Umpires played a significant role in determining the success or failure of unit engagements during the maneuvers. Their direct involvement in evaluating the lowest tactical units determined the level of effective firepower units employed against opposing forces. The umpires also supervised and integrated key conditions into the maneuvers that units would experience during actual combat. The conditions included the impact of firepower (infantry, artillery, tanks, and aircraft), losses (personnel and equipment), and delays (obstacles that delay movement and application of firepower).²⁶

As in all maneuvers, commanders and umpires had different perspectives about the adjudication process. During the maneuvers, division and brigade/regimental commanders often argued with the umpires over tactical and technical proficiency of their units against opposing forces. Their arguments centered on the adjudication process between the umpires and commanders about unit organization structure and the

²⁴ Quoted in Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, (Washington D.C.: Center of Military History, 1992) 121.

²⁵ Quoted in Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 64.

²⁶ FM 105-5 Field Manual, *Umpire Manual*, 5.

introduction of mechanized and air doctrine. For example, during air attacks, the air and ground umpires had to use their judgment in determining an appropriate percentage of losses for the ground forces. Evaluating the effectiveness of poor attacks suffered from two difficulties. The first was ground-to-air communications, this being the first use of air units in American combined-arms maneuvers. A second problem involved Armor officers, who contested the decisions of the umpires and the *Umpire Manual* guidelines. They disagreed with the percentages of combat losses, types of actual simulated ammunition used against other armor forces, and the development of new anti-tank doctrine for units. They argued all three advantages were unrealistic. Despite the controversies, General McNair believed that his staff and umpires were simulating training as realistically as possible and felt the overall adjudications were both just and accurate.

Outcomes of the Maneuvers

The maneuvers of 1939-1941 lead to many immediate Department of the Army decisions about the leadership required to command large bodies of troops effectively; the organization of infantry divisions; the confirmation of new armored formations; and the refinement of doctrine guiding the Army's mobilization, particularly in the anti-tank warfare.

The maneuvers identified men who could and could not command divisions and corps effectively in combat. As noted above, General Patton demonstrated the ability to command an armored division. His ingenuity, preparation, and employment of the 2nd Armored Division completely stunned the Red Force commanders. He was accused of violating the rules established in the *Umpire Manual*, but he replied that "I am unaware of the existence of any rules in war."²⁷ Many of the commanders did not demonstrate the same skills. Of the forty-two divisions, corps, and army commanders who took part in the maneuvers, General Marshall would relieve or push aside thirty-one to make way for younger officers.²⁸ Many of the senior officers who were relieved due to their age and

²⁷ Robert Citino, *Shreveport Under Siege: Louisiana Maneuvers, Phase 2*, (Originally published on HistoryNet.com. Published Online: May 12, 2011), <http://www.historynet.com/shreveport-under-siege-the-louisiana-maneuvers-phase-2.htm>, (Accessed 30 January 2013).

²⁸ Robert Citino, *Shreveport Under Siege: Louisiana Maneuvers, Phase 2*. (Accessed 30 January, 2013).

inability to command large formations effectively, remained within the units and were given the role of “caretakers,” providing guidance to their replacements until they acquired the experience in command positions.²⁹

One of General Marshall’s first initiatives as Chief of Staff was to change the Army’s infantry division’s square formations to triangular formations, a concept borrowed from the Germans, providing accuracy, responsiveness, and flexibility.³⁰ The maneuvers provided General Marshall and the Army an environment to test the new doctrine and organization of the infantry divisions. The consensus from the maneuver observers was that the triangular formations performed better than most square formations, providing three maneuver elements, as well as their own fire support. This analysis validated to Generals Marshall and McNair that the Army had to adopt the triangular structure for infantry divisions following the 1941 maneuvers.

Prior to conducting the maneuvers, the Army was aware that many “holes” existed in its doctrine. General McNair expected the maneuvers to enable the Army to validate many theories and provide enough experience to close the holes. During the maneuvers, armor and mechanized doctrine failed to establish links between armor units, infantry units, and reconnaissance units, resulting in bad tactics. Even successful commanders such as General Patton employed them as distinct capabilities, rather than as part of a combined-arms team.³¹

Testing the provisional anti-tank group doctrine was one of the GHQ’s priorities. General McNair believed that the lack of anti-tank doctrine and the absence of anti-tank organizations contributed to complacency. He believed that mobile anti-tank organizations constituted the appropriate antidote to blitzkrieg operations.³² Discussion concerning the relevance of provisional anti-tank groups would continue throughout Word War II; however shortly after 1945, they would be written out of doctrine and Army organizations.

Finally, the GHQ identified additional areas that concerned the Department of Army staff in its ability to train the Army to conduct planning, handle transportation and

²⁹ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 116.

³⁰ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 11.

³¹ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 121.

³² Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 123.

supply, dealing with casualties, demolitions, and reconnaissance and intelligence, all of which hindered the effectiveness of the maneuvers.

Consequences

The maneuvers were designed to mobilize the Army in implementation of President Roosevelt's Protective Mobilization Plan. The two years of peacetime maneuvers helped prepare Army units to conduct operations in North Africa by providing realistic training. Expectations concerning the maneuvers varied, as the Army considered them a test bed for evaluating new doctrine, training future leaders, and experimentation of new equipment. As with any training event, the true measure success can only be assessed by evaluating actions during combat.

Operation Torch, conducted in 1942 across Northern Africa, was the first American campaign of World War II against the Germans. Several historians have argued that American forces lost many of their initial battles, especially at the Kasserine Pass, because units operated under flawed doctrine and were armed with poor equipment.³³ These defeats contributed to the reality that American forces, due to their losses and tactical awkwardness, played an auxiliary role to the British forces, as the Army struggled to maintain the flow of equipment, personnel replacements, and supplies in support of operations.³⁴ To America's adversary, it appeared that the U.S. Army lacked training and battle-command experience. Major Hans von Luck, of the 3rd Reconnaissance Battalion, 21st Panzer Division, noted during the Battle of Kasserine Pass that he admired the American's first-class equipment but knew they lacked combat experience by their amateurish plotting and attempts to slow the German advances.³⁵ Agreeing with Major Luck, Field Marshal Erwin Rommel stated, "The Americans had as

³³ Mark Calhoun, *Defeat at Kasserine: America's Armor Doctrine, Training, and Battle Command in Northwest Africa*, 74. American equipment was considered inadequate within the desert environment and not as technology advanced as the German forces.

³⁴ Charles Anderson, *The U.S. Army Campaigns of World War II: Tunisia*. World War II Commemorative Campaign Brochures. U.S. Army Center of Military History. The logistic problem within North Africa would become a number one priority for General Eisenhower. <http://www.history.army.mil/brochures/tunisia/tunisia.htm>. (Accessed 19 March 2013); George F. Howe, *Northwest Africa: Seizing the Initiative in the West* (Washington D.C.: Center of Military History, Department of the Army, 1993), 479-481; and Russell F. Weigley *The American Way of War: A History of the United States Military Strategy and Policy* (Indiana: Indiana University Press, 1973), 322-324.

³⁵ Bruce Watson, *Exit Rommel: The Tunisian Campaign, 1942-1943* (Westport, CT: Praeger Publishers, 1999), 83.

yet no practical battle experience, and it was now up to us to instill in them the outset of inferiority complex of no mean order.”³⁶

One unit, the 1st Armored Division, which participated in the 1941 Louisiana Maneuvers and follow-on training in England and Ireland, experienced several major defeats at the hands of the German 5th Panzer Army.³⁷ The 1st Armored Division’s first engagement occurred during its amphibious landing in Tunisia in 1942 against armored units under the Vichy French.³⁸ The victory instilled confidence in American armor commanders and units that their doctrine and equipment were effective. Subsequent battles however, did not prove to be as successful, as armor units began to combat German panzers. Commanders soon came to realize that their tactics and equipment could not overcome the more battle-experienced forces of Germans. However, American forces soon adapted and overcame the losses, eventually defeating the German forces in Northern Africa.

During the campaign, training was criticized by commanders of the 1st Armored Division. They deemed new recruits unprepared to engage in actual combat as basic individuals lacked skills necessary for survival. Many believed the training the division received during the 1941 maneuvers was on par with the abilities of the German forces; however, the inexperience of the replacements and their lack of proper equipment contributed to failure during their first campaign. Others argued the maneuvers only allowed American forces to develop their readiness for combat through a rapid training process, whereas the German forces were already engaged in two years of combat. The strongest argument came shortly after the Louisiana Maneuvers, as the Army decided to transform units from the square formations to triangular formations, which included

³⁶ Quoted in Warren Tute, *The North African War* (New York: The Two Continents Publishing Groups, 1976), 209.

³⁷ Mark Calhoun, *Defeat at Kasserine: America Armor Doctrine, Training, and Battle Command in Northwest Africa*, 5.

³⁸ www.britannica.com/EBchecked/topic/627433/Vichy-France. The Vichy French was the French government during the German occupation of the state during WW II and was established under the Franco-German Armistice of June 22, 1940. The Armistice divided France into two zones: one under German military occupation and the other by the French. The units that the allies engaged during Operation Torch were French units that were part of the Vichy French operating in Tunisia and were easily destroyed during combat. After their defeat by allied force, the French forces would reorganize and become part of the Allied forces fighting against Germany.

combat units in North Africa. Trained Regular and National Guard units completing follow-on maneuver were stripped of their trained manpower, which was sent to other units as replacements.³⁹

The relief of commanders during the North Africa campaign was primarily due to the ineffectiveness of leadership experiences. General Eisenhower, then Commander-in-Chief of Operation Torch, with the concurrence of General Marshall, personally relieved several commanders during the campaign. General Eisenhower's assessment during the campaign was American commanders suffered several defensive defeats during the battle due to their lack of training and experience.⁴⁰ Of the two corps and six division commanders, one corps and one division commander would be relieved.

One prominent commander relieved of duty following Kasserine Pass, was Major General Lloyd Fredendall, commander of U.S. II Corps. It was stated by many of his subordinates during the North Africa campaign that, "Fredendall was utterly out of touch with his command, stonewalled any attempt at cooperation with Anderson [Commander of the British First Army in North Africa], feuded constantly with subordinate commanders, and generally broke every known principle of leadership in the employment of his corps."⁴¹ It is key to note that General Fredendall was commander of II Corps during the Carolina Maneuvers, and one of eleven corps commanders that would keep their commands during major combat operations in World War II, following the maneuvers.⁴² During the maneuvers, General Fredendall's demonstrated the ability to command during peacetime maneuvers; however, during the North Africa campaign, his poor performance demonstrated to Generals Eisenhower and Marshall that he could not handle command during actual combat situations. He was relieved shortly after Kasserine Pass and replaced by General George Patton.

A second commander, Major General Orlando Ward, commander of the 1st Armored Division, was relieved by General Patton shortly after Kasserine Pass, for

³⁹ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 186.

⁴⁰ Quoted in Warren Tute, *The North African War* (New York: The Two Continents Publishing Groups, 1976), 208. This comment was made by General Dwight Eisenhower during one of his front line inspections of American forces in Northern Africa, primarily focusing on the senior leaders in command of the II Corps units.

⁴¹ Carlo D'Este, *World War II in the Mediterranean, 1942-1945*, Chapel Hill: Algonquin Books, 1990), 24, and George F. Howe, *Northwest Africa: Seizing the Initiative in the West*, 487.

⁴² Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 187.

showing signs of being overcautious and unwilling to accept casualties during offensive operations.⁴³ This trait had been observed during the Louisiana Maneuvers, when General Ward failed to follow through with a coordinated attack against General Krueger's Blue Force, forgoing a chance for potentially decisive action.⁴⁴ General Patton's relief of General Ward was in concert with General Eisenhower's guidance which stated, "You must not retain for one instant any man in a responsible position where you have become doubtful of his ability to do his job."⁴⁵

Poor training, lack of equipment, and inadequate leadership were considered the leading factors in the defeat of American forces in the Kasserine Pass. However, by quickly adapting and adjusting their doctrine following Kasserine Pass, Army forces were able to defeat the German forces in Northern Africa. During the campaign, American forces would suffer losses, requiring units, such as the 1st Armored Division, to re-equip and reorganize its forces.⁴⁶

Additionally, American forces used this time to evaluate lessons from this battle to adjust their doctrine. The ability of armor formations to be effective in a concentrated mass and with speed, validating the armor doctrine explored during the maneuvers was not effective in North Africa. In actual combat, commanders learned that they had to move more slowly to survive. The effective use of combined arms, especially the use of artillery in concert with armor and infantry, demonstrated better results. The experience of the maneuvers indicated that anti-tanks units operated better within smaller formations and not committed at battalion strength as General McNair envisioned. They also led to the selection of competent leaders, many of whom would continue to be effective leaders throughout World War II.

⁴³ Rick Atkinson, *An Army at Dawn: the War in North Africa, 1942-1943* (New York: Henry Holt and Co., 2003), 451 and Omar Bradley, *A Soldier's Story* (New York: Henry Holt and Co., 1951), 64-65. Both authors emphasize that during a battle in Maknassy, Tunisia, General Ward showed signs of not displaying the "lack of force" to beat the Germans. It was during this battle the General Patton ordered General Ward to personally lead the attack, resulting in him receiving a wounded eye, but eventually being relieved by General Ernest Harmon. Ward was the only officer relieved by General Patton during World War II.

⁴⁴ Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 83. General Ward was commander of the 1st Armored Brigade during the exercise. He would later command 1st Armored Division in Tunisia.

⁴⁵ John Eisenhower S.D., *Allies: Pearl Harbor to D-Day* (New York: Da Capo Press, 2000), 280.

⁴⁶ George F. Howe, *Northwest Africa: Seizing the Initiative in the West*, 478. It was estimated that American losses were so catastrophic during the Kasserine Pass that many units had to be reconsolidated into smaller medium tank battalions, until they were reconstituted.

By effectively making changes in leadership, doctrine, and tactics, American forces would continue their campaign against German forces until 13 May 1943, when German forces surrendered in Tunisia. American forces would suffer approximately 18,000 casualties during the North Africa campaign, whereas, the German Army Group Africa would suffer roughly 250,000 casualties.⁴⁷

Conclusions

Given the U.S. Army's uneven performance in North Africa, what role did the Louisiana Maneuvers of 1941 play in preparing it for World War II? In part, the maneuvers instilled confidence in the Army that American citizen soldiers could be sent onto any battlefield after relatively brief and intense training.⁴⁸ Additionally, the maneuvers enabled the Army to identify shortfalls in doctrine, leadership, and organizational structure that had to occur in the maneuvers, not in actual warfare when errors and failures would prove costly, if not fatal.⁴⁹ Finally, the War Department structured and conducted the largest peacetime maneuvers in American history, supporting President Roosevelt's Protective Mobilization Plan and transforming the post-World War I Army into eighty-nine sustainable divisions used for combat during World War II.⁵⁰

The general consensus about maneuvers among those involved was that the war-like scenarios that organizations engaged in tested and prepared units for combat without actually firing a shot. Commanders involved in the maneuvers benefited from their experience of moving real troops through real situations. Lieutenant Colonel Lucian Truscott, the 13th Armored Cavalry Regiment S3, stated that

many of the officers and men who participated in the exercises will never forget them. They were so realistic that only the shot and sound of battle were missing. Dense forest growth, utter darkness of moonless nights, frequent rain, and occasional fog – all contributed to the realistic

⁴⁷ George F. Howe, *Northwest Africa: Seizing the Initiative in the West*, 671-676. The total number of casualties lost during the campaign included killed in action, wounded in action, and mission in action.

⁴⁸ Russel F. Weigley, *History of the United States Army*, 476.

⁴⁹ Jean R. Moenk, *A History of Large-Scale Army Maneuvers in the United States, 1935-1964*, 62.

⁵⁰ Russel F. Weigley, *History of the United States Army*, 438.

nature of the exercises and increased the value of the training. The exercise also demonstrated that relatively high state of training of the officers and men and their readiness for whatever was to come their way.⁵¹

The Army left the maneuvers better prepared to conduct combat operations in the European Theater, than its World War I counterpart. The Department of the Army developed a viable training program under the supervision of General McNair, as he structured training to include individual training to army-versus-army maneuvers. Funding for the development of the training areas, resources, doctrine, and cadre to prepare and lead units became a reality as the war began to affect American interests in Europe and American defeats in campaign such as Kasserine Pass.

With only a few exceptions, the maneuvers identified capable leaders, who could lead large-bodies of troops, one of General Marshall's high priorities. He required that officers embrace the new doctrinal concepts and also be able to think beyond doctrine to achieve success in war. As experienced during the maneuvers and North Africa campaign, relieving of incompetent commanders was important to General Marshall, as seen with Generals Fredendall and Ward. Only eleven of the forty-two commanders in the maneuvers would combat significant commands, corps or division, while the other thirty-one officers would act as caretakers for the younger officers who replaced them.⁵²

In summary, a plausible argument can be made that although the Army stumbled and stumbled badly at Kasserine Pass, it picked itself up, got its bearings, and went on to victory in Tunisia. The Louisiana Maneuvers of 1941 helped it to turn around in four ways: by identifying corps and division commanders that were not up to the demands of combat; by providing the evidence to cause the infantry division to change from square to a triangular organization; by refining the organization of its armored divisions; and by, refining its anti-tank doctrine. Without these changes the results of North Africa would almost certainly have been much worse. In the words of Michael Howard, the maneuvers allowed the Army to prepare for World War II and be "not too badly wrong."

⁵¹ Wilson A. Heefner, *Dogface Soldier: The Life of General Lucian K. Truscott, Jr.*, 33.

⁵² Christopher Gabel, *The U.S. Army GHQ Maneuvers of 1941*, 187. Many of the commanders relieved would become "caretakers" of the units they commanded. They provided their replacements the guidance and expertise until they were deemed fit to command during combat.

Five decades later, General Gordon Sullivan the Army Chief of Staff from 1991 to 1995, would revisit the idea of the Louisiana Maneuvers. By using General Marshall's concepts, General Sullivan wished to establish three exercises, called the Modern Louisiana Maneuvers to train and prepare the Army staff, combat units, and supporting agencies for 21st Century Warfare.

CHAPTER 3

THE MODERN LOUISIANA MANEUVERS OF THE 1990's: PREPARING FOR AN UNCERTAIN FUTURE

Our nation's ability to deter attack or act decisively to contain and deescalate a crisis demands an essentially instantaneous transition from peace to war preparedness.

General Carl E. Vuono

Background – The Cold-War Post Era through Desert Storm

Anticipating the new challenges of future war and cognizant of the beneficial effects that the Louisiana Maneuvers of the 1940's had had on the Army's preparedness for World War II, General Gordon Sullivan, the 32nd Army Chief of Staff, who served from 1991-1995, called for a series of General Headquarters exercises he referred to as the Modern Louisiana Maneuvers (LAM).¹ Sullivan wanted to re-shape the Army on his own initiative, rather than in reaction to circumstances.² Harkening back to Marshall's Louisiana Maneuvers of 1941, Sullivan stated "I was compelled by the power of Marshall's ideas and by his intent to conduct experiments that would be the basis for designing new units and battlefield processes...."³ Upon assuming office, General Sullivan noted several events that contributed to his decision for reshaping the Army: the end of the Cold War, which brought about a Congressionally mandated, significant reduction in the size of the force; increased global security threats, requiring the development of a expeditionary force for supporting contingency deployments; and the general requirements for modernization to accommodate emerging technology. General Sullivan's ideas for developing the Modern Louisiana Maneuvers rested on the premise that if the Army did not prepare itself properly, the next war may result in another "Task Force Smith," an illusion to the disastrous opening engagement of American force in the

¹ William Donnelly, *Transforming the Army at War: Designing the Modular Force, 1991-2005* (Washington D.C.: Center of Military History, 2007), 5.

² James L. Yarrison, *The Modern Louisiana Maneuvers* (Washington D.C.: Center of Military History, 1999), v.

³ James L. Yarrison, *The Modern Louisiana Maneuvers*, 3.

Korean War.⁴ He was also concerned that the Army's Cold-War mentality would not equip it well for future combat. But, unlike General Marshall, who trained the Army for a war whose major parameters were fairly clear, General Sullivan's task was to posture the Army to protect the nation's enduring interests in a future hidden in Howard's "fog of peace."

General Sullivan related the first event to the sudden end of the forty-four years of the Cold War. The Department of Defense was directed by Congress to reduce its combat forces strength significantly. It was also instructed to structure and train for quick, globally focused operations. During the Cold War, the Army had structured and trained itself, in accordance with President Dwight Eisenhower's National Security Council (NSC) 5440 to serve both as a deterrent to communist adventurism and, as a support element for foreign policy on an unprecedented peacetime scale. According to one Post-Cold-War analyst, NSC 5440 focused on the deployment of "military forces with sufficient strength, flexibility and mobility to enable them to deal swiftly and severely with Communist overt aggression in its various forms and to cope successfully with general war should it develop."⁵ From the early 1950's through 1991, particularly within the European theater, the Army was instrumental in the development of a multinational force to deter Soviet attacks and support the new North Atlantic Treaty Organization (NATO). Simultaneously, in Asia, under United Nations control, Army forces had been used to contain the spread of communism in Korea, Vietnam, and the Philippines.⁶

From the late 1970's to 1990, the Middle-East also became an area of interest for the international community, as the relationship between Iran and Israel continued to be strained, and later Saddam Hussein's occupation of Kuwait, threatened American

⁴ James L. Yarrison, *The Modern Louisiana Maneuvers*, 3. Task Force Smith was a battalion selected from the U.S. 24th Infantry Regiment and organized under the 21st Infantry Division to conduct operations in Korea. It was quickly formed and sent to Korea in an attempt to block North Korean aggression into South Korea near the village of Osan. Task Force Smith was deployed understrength, poorly equipped, and untrained compared to the Korean forces they were engaged with, resulting in approximately 40 percent of the Task Force being killed, wounded, or taken as prisoners. General Sullivan would often emphasize the importance of training the Army, using the ideas that the Army did not want to experience another Task Force Smith incident.

⁵ Campbell Craig, *Destroying the Village: Eisenhower and Thermonuclear War*, (New York: Columbia University Press:1998) 51.

⁶ "The Cold War Army", www.history.army.mil/books/COS/27-34.htm (Accessed 12 March 2013).

interests. Countries such as Saudi Arabia viewed American interests in the region threatening, as they were uncertain if the American presence was intended for deterrence of Soviet threats or for the protection of Western oil interests. The sudden Iraq invasion of Kuwait during President George H.W. Bush's Administration led to the perception within the international community that the U.S. was the only power capable of removing Saddam's forces from Kuwait. However, concerns over the security of the region and restoring Kuwait's role in the global economy eventually led the U.S. armed forces to conduct their largest combat operations since Vietnam, known as Desert Storm. In the end, Desert Storm indicated to the international community that the American armed forces had become a technologically advanced, responsible, and professional instrument of power, capable of being projected anywhere on a global scale.

Simultaneously, the Army was emerging from an identity crisis in two areas: attempting to put behind it the low esteem in which it was seen by the public after the Vietnam War; and trying to reinvigorate itself by changing institutional practices and becoming more technologically advanced. Prior to Desert Storm, the last major large-scale war in which the Army fought was Vietnam, which caused it to question its skills at the tactical, operational, and strategic levels.⁷ This required changes in how the Army was to be manned, trained, and equipped. It was helped in this endeavor by President Richard Nixon's decision to end the draft and establish the All-Volunteer Force.⁸ Thanks to this change in policy, the 1990's Army was well on its way to obtaining, training, and equipping a long-standing voluntary force.⁹

The Iraq invasion into Kuwait on 2 August, 1990, presented a unique opportunity for the U.S. Army, as it would face the fourth largest army in the world.¹⁰ In response to

⁷ Anne Chapman, *The Origins and Development of the National Training Center 1976-1984* (Fort Monroe: US Army Training Command, 1992), 8.

⁸ RAND Corporation, *The Evolution of the All-Volunteer Force*, 2. www.rand.org/content/dam/rand/pubs/research_briefs/2006/RAND_RB9195.pdf. (Accessed 17 March 2013).

⁹ Modern Louisiana Maneuvers: *General Officer Working Group III, 28-29 July 1993* (Carlisle, PA: Center of Military History). Collectively the GWOG, composed of representatives TRADOC, FORSCOM, AMC, Korea, USAEEUR, SOUTHCOM, and HQDA, identified multiple initiatives, such as C4I and mobilization, to be pursued during the LAM.

¹⁰ Thomas Houlahan, *Gulf War: The Complete History* (New Hampshire: Schrenker Military Publication, 1999), 64-66 and Lawrence Freedman and Efraim Karsh. *The Gulf Conflict, 1990-1991: Diplomacy and War in the New World Order* (Princeton, N.J.: Princeton University Press, 1993), 279-280. The Iraq ground forces consisted of the Republican Guard consisting of eight divisions, consisting of approximately

the Iraq's invasion, the U.S. deployed forces to the region to defeat Iraq forces in Kuwait and restore security to the region. Using Vietnam as a reference, the U.S. feared that it would suffer considerable losses and deployed approximately 541,000 personnel.¹¹ Building upon the technological advances the Army made since Vietnam, especially in the areas of precision munitions, global-positioning systems, and a variety of new weapon systems, the Army, in conjunction with the Air Force and coalition partners, quickly defeated the Iraqi forces. Significant battles, such as 2d Armored Cavalry Regiment's "Battle of the 73rd Easting, demonstrated that technological advances the Army made allowed it to operate in austere conditions, deliver overwhelming and accurate firepower, and sustaining minimal losses.¹² Desert Storm demonstrated to Army leaders that their efforts to change its training, equipping, and manning since Vietnam were heading in the right direction. General Sullivan stated that Desert Storm "was well executed. There were some things we learned that we didn't like and we changed. Some of them were training deficiencies or whatever, but generally it was flawless. I think what we saw was 21st Century warfare for the first time."¹³

Shortly after the fall of the Berlin Wall, the subsequent collapse of the Warsaw Pact, and Operation Desert Storm, the U.S. no longer saw the requirement to maintain a large Army, initiating a reduction of its forces from roughly 700,000 personnel to just under 500,000.¹⁴ This initiative also entailed a series of large-scale reductions in resources such as land, equipment, and services. Concurrently, the Army began to change from its large corps and division formations, organized to combat Soviet Union's

2,000 tanks, 2,000 armored personnel carriers, and 120,000 soldiers; and six regular Army tank divisions, three mechanized divisions, and over forty infantry divisions equating to approximately 2,000 tanks, 2,000 armored personal carriers, and 800,000 soldiers

¹¹ Lawrence Freedman and Efraim Karsh. *The Gulf Conflict, 1990-1991: Diplomacy and War in the New World Order*, 409. The U.S. would send approximately two-thirds of the forces of the coalition in support of Desert Storm. In particular, the Army would commit two corps consisting of seven divisions and supporting corps assets.

¹² Richard Lowry, *The Gulf War Chronicles: A Military History of the First War with Iraq* (New York: Universe, Inc., 2003), 160. The 2nd Armored Cavalry Regiment, primarily troops Eagle, Ghost, Killer, and Iron, would destroy one Iraqi Republican Guard Brigade, followed shortly by other brigades, consisting of approximately 150 vehicles; and kill, wound, and capture approximately 1200 Iraqis, while sustaining the loss of one Bradley Fighting Vehicle, one KIA and twelve wounded.

¹³ Gordon Sullivan and John Dabrowski, ed., *An Oral History of General Gordon R. Sullivan* (Carlisle Barracks, PA: US Army Military History Institute, 2009), 178.

¹⁴ www.infoplease.com/ipa/A0004598.html. (Accessed 15 March 2013). This chart provides an estimated number of Active Duty Military Personnel from 1940-2011. Original source of information was provided by the Department of Defense.

forces in Europe and Southwest Asia, to a modular Brigade Combat Team, designed to deploy rapidly and fight effectively.

Background – Geo-Strategic and Domestic Situations

The first step in changing the Army in the Post-Desert Storm era began with senior leaders such as General Sullivan and General Frederick Franks, commander of the U.S. Army Training and Doctrine Command (TRADOC), evaluating its past practices concerning doctrine and organization. In this effort, they built on many reforms initiated by Sullivan's predecessor, General Carl Vuono, who served as Army Chief of Staff from 1987 to 1991. Collectively, Army leaders identified the requirement to revise specific doctrine, such as Field Manuals 25-100, *Train the Force*; FM 25-101, *Battle Focused Training*; and FM 100-5, *Operations*. These manuals and other that accompanied the doctrinal renaissance, enabled units to train the new volunteer force for combined arms operations, to integrate land and air power, and to develop leaders.¹⁵ These manuals became the primary material used to train the Army from the mid-1980's, through the mid-2003. The 1980's *Army of Excellence* initiatives were no longer considered valid, as the Army sought to change from large-scale contingency organizations, division and corps used to combat Cold War Soviet formations, to smaller brigade combat teams. In addition, the Army continued to field new technology, such as the M1 Abrams tank, requiring new doctrine; it also refined training programs, to develop leaders to command at all levels.¹⁶

General Vuono identified six imperatives – doctrine, organizations, training, modernization, leader development, and quality Soldiers – essential for the development of the future force. General Sullivan had a special relationship with General Vuono, as

¹⁵ Field Manual 25-100 *Train the Force* (Washington D.C.: Headquarters Department of the Army, 1988); Field Manual 25-101 *Battle Focused Training* (Washington D.C.: Headquarters Department of the Army, 1990); and Field Manual 100-5 *Operations* (Washington D.C.: Headquarters Department of the Army, 1993).

¹⁶ John Romjue, *The Army of Excellence: The Development of the 1980's Army* (Fort Monroe: U.S. Army Training and Doctrine Command, 1993), 5-12. The Army of excellence called for planners to redesign each of the five Active Army corps - the V and VII Corps in Germany, and the I, III, and XVIII Airborne Corps in the United States - against theater specific war plans. The Army also increased the capability of the heavy (armored) divisions by increasing the support to corps, providing increased fire power and maneuverability in support of the AirLand Battle doctrine.

he had known him throughout his early career, later serving under him in the 1st Infantry Division. As Chief of Staff, Vuono had selected Sullivan to be his Deputy Chief of Staff for Operations and Vice Chief of Staff.¹⁷ This relationship influenced Sullivan's actions for changing the Army and implementing the six imperatives, as he became the Chief of Staff. The six imperatives were written into a series of field manuals during General Vuono's tenure and revisited by General Franks. Similarly to General McNair's 1942 *Field Manual 21-6 List of Publication for Training*, the Army's *Field Manuals 25-100 Training the Force* and *25-101 Battle Focused Training*, established guideline for the Army's training programs, preparing units at all levels through a variety of training initiatives – *institutional training*, *unit training*, and *self-development*.

The first initiative, *institutional training*, involved the development of Combat Training Centers (CTC), to train the Army, to maintain a lethal, versatile, and ready force capable of rapidly projecting power and obtaining land dominance.¹⁸ Similarly to the maneuver space requirements to conduct large-scale during the 1941 Louisiana Maneuvers, four CTCs were established: the National Training Center (NTC) at Fort Irwin; California, the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana; the Combat Maneuver Training Center (CMTC) at Hohenfels, Germany; and the Battle Command Training Program (BCTP) at Fort Leavenworth, Kansas, the last being a center for conducting simulated command post exercises for division and corps commanders and their staff. The first three CTCs were established to provide brigade and battalion-sized maneuver space, for the employment of fighting systems as a combined-arms team.

¹⁷ "An Oral history transcript of General Gordon R. Sullivan", interviewed by Colonel David Ellis and Col John Dabrowski, eds., *An Oral History of General R. Sullivan* (Carlisle Barracks, PA: U.S. Army Military History Institute, 2008), 99. General Sullivan became an advocate for General Vuono's approach to Army training, during his time as the G3 for the 1st Infantry Division, stating that "General Vuono was dynamo and that he was already involved with TRADOC as a Brigadier General."

¹⁸ <https://www.army.mil/aps/97/CH2.htm>. (Accessed 25 MAR 2013). The Combat Training Centers were formalized into training programs in the late 1970s and early 1980's. Each CTC were comprised of opposing forces, observers and controllers (OCs), an environment of unrestricted force-on-force training, and live-fire ranges (BCTP did not have the live-fire range). Units attending training at NTC participated in high intensity large-scale maneuvers consisting of brigade task forces, comprised of two maneuver battalions, varying from heavy and light battalions, and aviation and cavalry units. JRTC rotations were focused on low-to-mid intensity combat contingency operations, primarily for SOF and airborne/light infantry type units. CMTC provided forward-based units in Europe, training that simulated peace operations to high-intensity conflict at the maneuver battalion level (battalions were part of a brigade task force). Finally, BCTP enabled division and corps commanders and their staffs to exercise maneuvers through battle simulation command post exercises, primarily at their home station and incorporating them into tactical field exercises.

Due to the size of the CTCs, large-scale maneuvers on the scale seen during the 1941 maneuvers generally did not include corps and division staffs. But the development of the BCTP enabled corps and division staffs to conduct large-scale maneuvers through the use of command post exercises. Results from each maneuver conducted at each CTC informed Army leadership on potential requirements in changing doctrine, training, and organizations, further laying the groundwork for the Army for the 21st century.¹⁹

Field Manual 25-101 *Battle Focus Training*, provided guidelines for the second initiative *unit training*, to conduct “Battle focus” training, a concept designed to derive peacetime training requirements from wartime missions.²⁰ Through the use of field training exercises (FTX) and Tactical Exercise Without Troops (TEWTs), leaders developed the ability to prepare and evaluate subordinate commanders and their units’ combat readiness. The Army also developed a series of Mission-Essential Task Lists (METL), linking unit combat tasks to their higher headquarters’ ability to conduct active operations and execute contingency plans.²¹ Division and brigade staffs were responsible for evaluating their subordinate units using the Army Training and Evaluation Programs (ARTEPs). The ARTEPs, were designed to evaluate a series of unit battle drills and mission training plans, focused on supporting the higher headquarters mission.²²

The third initiative, *self-development*, focused on individual-level skill training, beginning with basic training and advanced individual training (AIT), followed by a series of leadership development training courses, such as Command and General Staff College and Non-Commissioned Officer Leaders Development schools. The schools emphasized the roles of commanders at the unit level, who were responsible for the development of their soldiers through a variety of training events, ranging from small-

¹⁹ Field Manual 25-101 *Battle Focus Training*, (Department of the Army, 1990), Appendix D CTC Program. FM 25-101 is the primary source for this section of the thesis.

²⁰ Field Manual 25-100 *Training the Force* (Headquarters Department of the Army, 1988), 1-7. <http://www.enlisted.info/field-manuals/fm-25-100-training-the-force.shtml>. (Accessed 27 March 2013). The Battle focus concept guides the planning, execution, and assessment of each organization’s training program to ensure its members train as they are going to fight.

²¹ Field Manual 25-100 *Training the Force*, 2-1. Some examples of external directives units trained for were mission training plans, mobilization plans, installation and wartime transition and deployment plans and force integration plans. Each units embeds their unit specific tasks to their higher headquarters.

²² Field Manual 25-101 *Battle Focus Training*, (Department of the Army, 1990, Appendix B-2 Unit Level Training Program. FM 25-101 is the primary source for this section of the thesis.

unit exercises to large-scale maneuvers at the CTCs.²³

Sullivan also realized that the Army had to learn to adapt to new realities more quickly than it had in the past. During the mid-1980s, the Army began equipping itself to handle world-wide contingencies. The major initiatives here were commonly known as the “Big Five” systems: the M1 Abrams Tank, the M3 Bradley Fighting Vehicle, the AH-64 Attack Helicopter, the UH-60 Utility Helicopter, and the Patriot Missile System, all of which played a major role in Desert Storm.²⁴ The Army also sought to incorporate information technology into its “Big Five” weapons systems, reducing the “fog of war” on the battlefield.²⁵ General Sullivan felt, however, that the Army had an institutional deficiency in developing and implementing new technology, frequently referring to the fifteen years it took to develop and field the M1 Abrams tank.²⁶

The realization that the Army was adapting too slowly was the driving force behind Sullivan’s decision to establish Modern Louisiana Maneuvers (LAM). To direct this effort, he established the LAM task force, a series of General Officer Working Groups (GWOG), comprised of brigadier and major generals from the Department of the Army Staff (ARSTAF), Major Commands (MACOM), and reserve components. He also instituted specially designed training events, as well as simulation and combat training centers, to speed the Army’s adaptation processes. Collectively, these efforts identified and evaluated new technology, doctrine, and organizational changes and identified the costs associated in making the changes.²⁷

The Modern Louisiana Maneuvers (LAM) were established in part due to all of the above developments, as well as General Sullivan’s personal vision of changing the

²³ Field Manual 25-101 *Battle Focus Training*, (Department of the Army, 1990), Appendix B Leader Development. FM 25-101 is the primary source for this section of the thesis.

²⁴ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005* (Washington, D.C.: Center of Military History United States Army, 2011. <http://purl.fdlp.gov/GPO/gpo16049>), 38.

²⁵ David J. Lonsdale, *The Nature of War in the Information Age: Clausewitzian Future Strategy and History*, Edited by Colin Gray and Williamson Murray. London: Frank Cass, 2004, 1. During the time, the Army was involved in the theory called the Revolution of Military Affairs (RMA) in which future warfare involves the transformation of military technology, primarily in the areas of information, communications, and space technology.

²⁶ James L. Yarrison, *The Modern Louisiana Maneuvers*, v.

²⁷ Scott Stephenson, “The Revolution in Military Affairs: 12 Observations on an Out-of-Fashion Idea”, *Military Review*, 1 May 2010, <http://www.readperiodicals.com/201005/2066325621.html>. (Accessed 2 March, 2013).

Cold War Army to what he called the Force XXI or the Army of the 21st Century.²⁸ Sullivan's primary focus for the maneuvers was to enhance the capabilities of the ARSTAF, by improving its ability to deal effectively with global contingencies. He also wanted the Army to change personnel standards, develop more flexible and modern doctrine, and alter the Army's institutional approach to training individuals and units. The maneuvers were designed as a set of exercises and experiments that relied heavily upon using computer-based simulations. The simulations were used to hasten the process by which the Army would reform itself. The simulations focused on two main areas: how best to design units that had equal or greater fighting power than existing formations, but could deploy more rapidly; and how to use emerging digital technology to improve command and control.²⁹ The LAM, in short, represented Sullivan's major effort to prepare the Army for the uncertain demands of the 21st century.

Preparation and Structure

General Sullivan's first step in establishing the maneuvers was to form a task force, designated the LAM Task Force, to design the maneuvers. He specifically sought to use the task force, as an alternative to the Army's business-as-usual force-development process, which historically was slow, inflexible, and budget-driven.³⁰ His specific guidance for the task force was to establish the mechanisms for coordinating the flow of information, generating and resolving issues, integrating issue-related experimentation into various exercises, and forcing decisions from the Army's senior leadership.³¹ The task force acted in a facilitating role, gathering issues from the MACOMs and the ARSTAF, consolidating and presenting them to the GWOG, and finally recommending the issues to the task force Board of Directors for exercise and experimentation during the

²⁸ James L. Yarrison, *The Modern Louisiana Maneuvers*, 49.

²⁹ William Donnelly, *Transforming an Army at War: Designing the Modular Force, 1991-2005* (Washington D.C.: Center of Military History, 2007), 5. The exercises and experiments would primarily be conducted by using computer simulations, saving time and costs. However, the use of physical units would be required as testing of digital warfare began in 1994 with the 2d Armored Force, Fort Hood Texas. This unit was redesignated as the 4th Infantry Division.

³⁰ James L. Yarrison, *The Modern Louisiana Maneuvers*, 9.

³¹ James L. Yarrison, *The Modern Louisiana Maneuvers*, 3.

Louisiana Maneuvers.³²

Sullivan recognized that the Army was operating in more restricted conditions than existed in the 1940's, which led him to conclude that the computer-based simulations would be an important component of the LAM. In contrast to Marshall's 1941 maneuvers, resources were constrained in the areas of land, space, and funding. Sullivan overcame these constraints by relying heavily on computer-based simulations, emphasizing to his staff, supporting agencies, and training centers, that the simulations would be the Army's tool for inexpensively testing new doctrinal and organizational ideas, without involving large concentrations of soldiers and equipment or extensive real estate.³³ The simulations evaluated a variety of campaigns that ranged from counter-drug campaigns, large-scale theater power projection campaigns, small-strike operations, special operations, and finally mobilizations and deployments.³⁴ To supplement the simulations, Sullivan directed that training at the combat training centers (CTC) incorporate specially equipped units that would test new equipment, organization changes, and doctrine identified by the simulations.

Sullivan also recognized that the Army required visionary leaders to support his LAM initiative. Thus, he engaged with like-minded peers, such as Generals Franks and Vuono, as well as subordinates, such as Brigadier General Tommy Franks, Commandant of the U.S. Army Field Artillery School, to ensure that his initiatives were supported by the Army's senior leadership. General Frederick Franks worked closely with General Sullivan, as the Deputy Exercise Director. From his service as the VII Corps commander in Desert Storm, General Frederick Franks envisioned changing doctrine to include five "battle-dynamics": 1) early entry, lethality, and survivability; 2) battle space – mounted and dismounted; 3) depth and simultaneous attack; 4) battle command; and 5) Combat Service Support (sustainment).³⁵ He would incorporate these five dynamics into the

³² James L. Yarrison, *The Modern Louisiana Maneuvers*, 35-36.

³³ James L. Yarrison, *The Modern Louisiana Maneuvers*, i.

³⁴ Gordon Sullivan, *The Collected Works of the Thirty-Second chief of Staff, United States Army: June 1991-June 1995* (Washington D.C.: The Department of the Army: 1996), 104. General Sullivan stated this during his Chief of Staff message 9 March, 1992.

³⁵ James L. Yarrison, *The Modern Louisiana Maneuvers*, 12. and Gordon Sullivan, *The Collected Works of the Thirty-Second chief of Staff, United States Army: June 1991-June 1995*, 145. The five areas would

maneuvers, by mobilizing a series of “Battle Labs” with specialized simulations to evaluate doctrine, organization, and equipment. The Battle Labs would be the catalyst for the LAM task force, the GWOG, and senior leadership to evaluate these areas. The Battle labs consisted of the following:

- *Battle Command* at Fort Leavenworth, Kansas
- *Dismounted Battle Space* at Fort Benning, Georgia
- *Mounted Battle Space* at Fort Knox, Kentucky
- *Depth and Simultaneous Attack* at Fort Sill, Oklahoma
- *Early Entry, Lethality, and Survivability* at Fort Monroe, Virginia
- *Combat Service Support* at Fort Lee, Virginia³⁶

The labs were instructed to develop scenarios within their own specialties and connect their findings through a system called the distributed interactive simulations (DIS). The DIS enabled the Army staff, labs, and the MACOMs to exercise theater-level scenarios and integrate tactical scenarios with actual units operating within the combat training centers.³⁷

General Sullivan selected Brigadier General Tommy Franks as the first Director of the Chief of Staff’s Louisiana Maneuvers Task Force.³⁸ General Franks led the LAM Task Force and the Board of Directors, providing a forum in which to field proposals for testing of emerging technology and issues raised by the GWOG. He was also instrumental in developing the LAM Task Force into a venue for visiting dignitaries, by developing simulations and videos, providing insights on what the LAM was to accomplish for the Army. General Tommy Franks would be the task force chair for two years, guiding a team of TRADOC military and civilians, and working directly for General Sullivan.

become the new foundation of doctrine, guiding the Army forward into the next decade in the structuring and conduct of training. General Sullivan would emphasize this approach in his Association of the United States Army (AUSA) 25 May 1993.

³⁶ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 90.

³⁷ James L. Yarrison, *The Modern Louisiana Maneuvers*, 91.

³⁸ James L. Yarrison, *The Modern Louisiana Maneuvers*, 20. General Franks was personally selected by General Sullivan to lead the Task Force. There is no specific information pertaining to this personal selection of General Franks. He would later be instrumental in the 2003 Iraqi invasion.

Observers during the simulations and General Headquarters exercises included senior four-star leaders, the Army staff, and supporting agencies, each providing guidance and after-action reviews (AAR) to the LAM task force and GWOGs concerning the structure and conduct of the future exercises. They also provided the Task Force and Board of Directors an assessment of General Sullivan's initiatives for use during the maneuvers.³⁹ These assessments became extremely important as the maneuvers introduced challenges and issues revolving around General Sullivan's views of developing the Force XXI Army and the priorities of other four-star leaders and the Board of Directors.⁴⁰

As with the 1941 maneuvers, umpires played a crucial role in adjudicating the outcomes employed and the role of forces participating in the simulated maneuvers and the combat training centers. During the 1980's the CTCs became the primary training grounds for conducting large-scale maneuvers, each requiring umpires, commonly known as observer-controllers (OC), to judge the application of doctrinal principles applied by units in training. The OCs were selected from qualified commissioned and non-commissioned officers, representing their specific branch of specialty (armor, infantry, etc.) to coach units conducting training.⁴¹ For example, qualified company-grade officers were those who had already served as company commanders. Their role included providing the realistic battlefield effects during the training, assessment of casualties, and adjudication of scenarios that occurred during any engagements.

A different variety of umpires or controllers were involved in the computer simulations. Their primary roles consisted of being the project officers who designed the experiments, developed the structure of each meeting, coordinated the support requirements, developed the computer simulations, facilitated seminars and discussions, and developed after-actions reviews.⁴² Assisting the controllers were many senior leaders who had previously commanded brigade or higher organizations, providing the controllers their operational experience to develop the scenarios, ensuring realistic

³⁹ James L. Yarrison, *The Modern Louisiana Maneuvers*, 39.

⁴⁰ James L. Yarrison, *The Modern Louisiana Maneuvers*, viii.

⁴¹ Anne Chapman, *The Origins and Development of the National Training Center 1976-1984* (Fort Monroe: US Army Training Command, 1992), 72.

⁴² Michael Ingram, *Battle Command Advance Warfighting Experiments: Summary of April 1994 Experiments* (Fort Monroe: US. Training and Doctrine Command Analysis Center, 1994), 4.

conditions. They also acted as OCs for the commanders and their staffs participating in command post exercises, providing similar oversight to the training, as the combat training centers.

Pre-Maneuver Guidance

General Sullivan gave General Tommy Franks three specific objectives for the Louisiana Maneuvers: to evaluate emerging Army policies concerning Departmental Title 10 responsibilities to man, equip, organize, train, and sustain the force and generate tailored Total Army force packages to support the national military strategy; to participate in joint and combined operations to support warfighting CINC's (commander-in-chief) in order to learn how to adjust the DOTMLS (doctrine, organizations, training, materiel, leader development, and soldiers) and confirm strategic mobility requirements; and to evaluate new weapon systems through the use of simulations in a "fly before you buy" commitment to full-fledged Research and Development (R&D).⁴³ The guidance left General Franks and his staff to establish the maneuvers as he saw necessary. Sullivan told Franks "You will find yourself in a creative role. I will encourage you and your people in this regard."⁴⁴ In sum, General Tommy Franks' tasks were to develop and execute the Louisiana Maneuvers; to organize and staff the LAM Task Force; coordinate the LAM efforts with TRADOC and the Battle Simulation Labs; and to provide other periodic after-action reviews to Generals Sullivan and Frederick Franks.

General Sullivan prescribed a specific structure for General Tommy Franks, the LAM Task Force and the Board of Directors, to determine and resolve issues that arose from any testing and evaluation being conducted by the Battle Labs or identified by general officers participating in the GWOG. Issues identified by the GWOG were presented to the LAM task force and the Board of Directors, who collectively viewed and voted on the issues presented during their forums and determined their relevance to the Army. Once an issue was vetted by the different forums, the LAM coordinated with the Battle Labs and other agencies, such as Army Materiel Command (AMC) and U.S. Transportation Command (USTRANSCOM) to determine the relevance of enhancing

⁴³ James L. Yarrison, *The Modern Louisiana Maneuvers*, Appendix H, 129. This memorandum was the letter of instruction given to General Tommy Franks, assigning him as the director of the LAM task force.

⁴⁴ James L. Yarrison, *The Modern Louisiana Maneuvers*, 34.

mobility, modernization of equipment, and obtaining total asset visibility.⁴⁵

The task force was also instructed to incorporate other issues, such as fratricide, “owning the night,” battle command, battle-space management, total asset visibility, and digitization, revolving around senior-leader discussions.⁴⁶ For example, issues concerning fratricide, evolved into combat identification and situational awareness, finally resulting in the digitized battlefield or “common relevant picture.” The requirement to establish a common picture for soldiers at all levels of command resulted in the development of the Command, Control, Communications, Computers, and Intelligence (C4I) System. This system was field-tested by platoons of the 1st Calvary Division during exercises at the National Training Center in 1992. Eventually, the Army horizontally integrated the C4I system across the whole force, primarily for those components which were to be engaged, through networking and communication technology.⁴⁷

Conduct of the General Headquarter Exercises

Generally following General Marshall’s concept for the 1941 Louisiana Maneuvers, General Sullivan directed that a series of General Headquarters exercises (GHQx) be conducted from 1993 to 1995. All of the GHQx’s had two main features to exercise the ARSTAF and participating MACOMs: each scenario was played in two geographic theaters to stretch the Army’s scarce resources; and staffs were required to project force structure requirements for combat operations and combat support organizations out to 1999.

The series of GHQxs also presented a venue for the Army to continue analyzing its ability to maintain a combined active and reserve force of 4 corps, 14 active Army divisions and 8 National Guard divisions. In addition, the Army continued to evaluate the mixture of its armor and mechanized infantry divisions, recognizing that future conflicts against large-scale formations might not occur. The Army leadership’s intent was to design Army heavy divisions so that they were mirror images of each other, each

⁴⁵ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 91.

⁴⁶ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 122.

⁴⁷ James L. Yarrison, *The Modern Louisiana Maneuvers*, 40. Enhancing battlefield command throughout the Army, was to be accomplished through battlefield digitization, implemented horizontally through the organizations. These processes would be continually evaluated through the LAM process.

possessing similar capabilities, and deploy them almost interchangeably for several types of operational missions. This decision was based on not wanting to reduce any of its numbers of divisions, but instead developing a force that would maintain its readiness for deploying and handling global contingencies.⁴⁸

The first exercise, GHQx 93, took place from 12-18 August 1993, with the ARSTAF participating in two planned command post exercises, simulating a crisis designed to plan and use limited resources. Sullivan directed the ARSTAF participate in two global exercises, Ulchi/Focus Lens (Korea) and Fuertes Defensas (Southern Command), adding realism to the computer simulations. His intent was to stress the Department of the Army headquarters' crisis-response and decision-making systems by exercising the staff's ability to acquire scarce resources required to man, organize, equip, train, and sustain elements conducting operations in two simultaneous exercises: a major regional contingency (MRC) and a lesser regional contingency (LRC). The staff was in fact challenged by the two simultaneous theaters, which revealed faults in the ARSTAF's ability to support mobilization, deployment, sustainment, and redeployment of forces. To overcome these deficiencies, the LAM used commercial off-the-shelf technology to provide in-transit visibility of forces and extend the ARSTAF's command capabilities.⁴⁹

The GHQx 93 exercise produced mixed reviews. The after-action reviews and the LAM Task Force reports were confusing. This confusion stemmed from the task force observers' inability to evaluate the team participating in the simulations, as well as their inability to translate information into a useful product, such as anticipating future issues. Never-the-less, the exercise forced the ARSTAF to participate in an exercise to support two theaters, which revealed the need for additional training and led to the development of additional questions by the LAM Task Force to engage senior leadership.

A second exercise, GHQx 94, was conducted as a four-phase command post exercise (CPX) begun in November 1993. It consisted of four weeks of active play

⁴⁸ Chapter 4, Structuring and Training the Force, 44.), <http://www.history.army.mil/books/DAHSUM/1993/ch04.htm>. (Accessed 25 March 2013).

⁴⁹ James L. Yarrison, *The Modern Louisiana Maneuvers*, 44 and John Dilbert, "General Headquarters Exercise Insights", *Military Review*, 77 (March/April 1997), 61-67 <http://web.ebscohost.com.aufric.idm.oclc.org/ehost/detail?sid=2cf1f5ed-21cc-4051-e5b2bebe77b9a66%40sessionmgr12&vid=1&hid=25&bdata=JnNpdGU9ZWwhvc3QtbGl2ZSZzY29wZT1zaXRl#db=f5h&AN=3207079>, (Accessed 1 April 2013).

spread over eight months at the Battle Command Battle Laboratory (BCBL) at Fort Leavenworth, Kansas. Similarly to the GHQx 93 scenario, the maneuvers evaluated the ARSTAF's ability to support two simultaneous combat operations. During the first two phases of the exercise, the Army simulated the deployment of a contingency corps to one location and the remaining active component divisions to other region, causing the Army to begin the mobilization of its Reserve components. During the third phase of the exercise, the LAM incorporated a Command and General Staff College (CGSC) simulation exercise, *Prairie Warrior 94*, into the BCBL simulation. The BCBL incorporated *Prairie Warrior 94* in support of the LAM, to explore the idea of using a training exercise as a basis for combat developments scenario to investigate modernization issues.⁵⁰ This phase evaluated the ability of multiple agencies to support of a Mobile Strike Force (MSF) – a brigade task force enhanced with information-age equipment and capabilities.⁵¹ The overall objectives of the simulation were to provide the LAM task force a holistic review of C4I systems, determine necessary modifications to the Battle Command Support Systems (BCSS), and review of technology and information that provided a relevant common picture of the battlefield for the warfighting commander.⁵² The final phase of the exercise, focused on the ARSTAF's ability to support the deployed forces. The LAM consolidated the findings and incorporated into the GHQx 95 exercises, the first of many Force XXI maneuvers conducted through the mid-late 1990's.

During the GHQx 94 exercises, the LAM Task Force and the ARSTAF gathered several insights that resulted in Army institutional changes. The exercise highlighted the Army's inability to forecast critical decisions points for expanding the industrial base for supplies and when to increase the training base for the mobilization of additional forces. This finding resulted in the development of an ARSTAF decision matrix to identify the decisions it would provide to support the operational commanders. Second, the exercise demonstrated that many National Guard units were not available when they would be

⁵⁰ Michael Ingram. *Battle Command Advanced Warfighting Experiments: Summary of April 1994 Experiments* (TRADOC Analysis Center Study and Analysis Center Studies Directorate, 22 November 1994), 2.

⁵¹ James L. Yarrison, *The Modern Louisiana Maneuvers*, 44 and John Dilbert, "General Headquarters Exercise Insights", *Military Review*, 77 (March/April 1997), 61-67.

⁵² Michael Ingram. *Battle Command Advanced Warfighting Experiments: Summary of April 1994 Experiments*, 1.

required. In response to this finding, the Army identified the Mobilization and Operations, Planning and Execution System (AMOPES) to be the standard system to synchronize units' availability dates with the Army's OPLANs. The exercise further revealed that the Army's ability to support multiple MRCs required timely, relevant decisions from the National Command Authority (NCA). The exercise highlighted a deficiency of 254 combat service support units in the requirement to support a second MRC. This discovery led to a review of the roles active and reserve components were to take, as part of the Army's force structure.⁵³ The exercise also facilitated the ARSTAF's ability to support actual operations, such as Uphold Democracy in Haiti and Vigilant Warrior in Saudi Arabia, that occurred between GHQx 94 and GHQx 95.

The final exercise, GHQx 95, was a three-phased capstone event during which the ARSTAF evaluated its role in supporting a European peacekeeping mission; a simulated extension to the *Prairie Warrior 94* exercise; and a six-month peacekeeping mission, all of which were set in 1999. The exercise began with the ARTAF concentrating on committing a large force to a peacekeeping mission in the European theater, followed by an operations plan (OPLAN) directing deployment to a second theater of operations. The second phase coincided with *Prairie Warrior 95*, an exercise designed to conduct a counteroffensive operation using forces that were being used during the GHQx. The second phase again evaluated the ARSTAF's ability to support a six-month rotation of forces in support of a peacekeeping mission, while continuing to support operations in a second theater of war.⁵⁴ The final phase evaluated the Army's ability to support one MRC requirement and two major operations other than war (OOTW).

GHQx 95 led to several important findings. First, the exercise revealed that the Army's world-wide commitments and reduced force structure required decisions on which missions it would support, an MRC or OOTWs. At this time, the Army was focused on supporting OOTW missions, but it was assuming risk in maintaining the force structure required to handle the unexpected MRC. This led to a second insight – during a single MRC and a large OOTW, the Army's Reserves were insufficient to provide logistic support to deploying units. GHQx 95 also identified a requirement for the

⁵³ James L. Yarrison, *The Modern Louisiana Maneuvers*, 44 and John Dilbert, "General Headquarters Exercise Insights", *Military Review*, 77 (March/April 1997), 61-67.

⁵⁴ John Dilbert, "General Headquarters Exercise Insights", *Military Review*, 77 (March/April 1997), 61-67.

ARSTAF to work in conjunction with the Joint Staff, to make early determinations about deploying forces. The plans that resulted from these findings eventually became “on the shelf” plans that identified active and reserve units and their logistic support for the initial mission, plus two rotations. Finally, the Army identified a requirement to reconstitute its pre-prepositioned war reserves. Following the exercise, the ARSTAF began to formulate a plan, centered on a pre-positioned brigade set of equipment that, once offloaded, had to be reconstituted.⁵⁵

Collectively, the three exercises produced several broad observations. First, force projection required anticipatory decision making. Second, force projection for supporting a two-MRC strategy, required establishing priorities and developing a balanced force structure. Third, continuous staff interaction was necessary between the ARSTAF and the National Command Authority to ensure scarce Army resources were effectively allocated. Fourth, early access to Reserve Component forces was essential for the Army to be able to project forces. Fifth, projected deployment dates for Reserve Components combat forces were inconsistent with strategic requirements. Finally, some units identified for the first MRC could not initially meet existing criteria for deployment.⁵⁶ The LAM Board of Directors used these insights to produce a list of tasks for the ARSTAF, which in turn established a series of dates for completing corrective action.

Outcomes of the Maneuvers (Analysis and Actions)

The general headquarters exercises constituted a series of viable command post exercises, the results of which were integrated into General Sullivan’s LAM process. They enabled Sullivan to evaluate the Army’s crisis-action responses for global contingencies; determine the appropriate force structure for such contingencies; validate the Army’s training program with combat training centers; and “determine long-term Army processes that most likely be institutionalized if they worked and changing the

⁵⁵ John Dilbert, “General Headquarters Exercise Insights”, *Military Review*, 77 (March/April 1997), 61-67.

⁵⁶ James L. Yarrison, *The Modern Louisiana Maneuvers*, 44, and Mark Sherry, *The Army Command Post and Defense Reshaping, 1987 – 1997* (Washington D.C.: U.S. Army Center of Military History, 2008), 110. Sherry stated that the exercises validated the need of the Army force of two corps headquarters, seven divisions, and two armored cavalry regiments to prevail in a single MRC and an early access to the reserve components, requiring greater reserve readiness.

minds of those who employ them.”⁵⁷

The exercises provided a tool with which General Sullivan determined that the ARSTAF, supporting agencies, and the existing Army organizations could not support multiple contingencies simultaneously. Analysis derived from the use of computer simulations during the GHQxs presented General Sullivan and the LAM Task Force concepts that changed the structure and conduct of Army training. The *Prairie Warrior 94* exercise, provided the LAM a focused investigation of battlefield digitization, with which to determine whether and how information technologies could be used to increase the breadth and depth of a commander’s situational awareness, reducing the “fog of war.”⁵⁸ This was accomplished by integrating networking, Internet, and space-based capacities to provide information across the battlefield to support the Army’s digitization of divisions, and validate Battle Lab experimentation. For example, during *Prairie Warrior 94*, the MSF commander and staff were evaluated in their decision-making processes, using C4I systems to maneuver the MSF against simulated Red forces. The findings recommended the development of doctrine to employ the MSF; develop new battle command concepts, such as including relevant concept developers, observers, controllers, and players; and review the future weapons systems, all focused on making the MSF more combat effective.⁵⁹ Upon completion of the computer simulations, evaluation of the information systems continued within units, specially equipped with digital technology that participated in rotations at the National Training Center at Fort Irwin, California. Eventually, one such unit, the 2nd Armored Division located at Fort Hood, Texas, would become equipped, manned, and trained using the digital systems, beginning the Army’s Force XXI force structure.⁶⁰

In conjunction with the General Sullivan’s Modern Louisiana Maneuvers, the ARSTAF and TRADOC continued to evaluate and refine Army doctrine, training, leader

⁵⁷ James L. Yarrison, *The Modern Louisiana Maneuvers*, 93.

⁵⁸ Michael Ingram. *Battle Command Advanced Warfighting Experiments: Summary of April 1994 Experiments* (TRADOC Analysis Center Study and Analysis Center Studies Directorate, 22 November 1994), 1.

⁵⁹ Michael Ingram. *Battle Command Advanced Warfighting Experiments: Summary of April 1994 Experiments*, 14.

⁶⁰ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 144. The 2nd Armor Division would later be redesignated as the 4th Infantry Division. Early units involved in the digitization process included Task Force 1-70 Armor of the 194th Separate Armored Brigade (Fort Knox, KY), who participated in the 24th Infantry Division (Mechanized) rotation at the National Training Center.

development, and organization. The foundation for all these areas was the Army's doctrine for the Army's near-to-mid future of the late 1990s. General Frederick Franks and TRADOC updated several documents, providing guidance in training to all echelons of command. The first manual updated was Field Manual 100-5, *Operations*, which became the capstone document for all other doctrine during the 1990s. The manual provided guidance to Army commanders about how to think about the conduct of campaigns, major operations, battles, engagements and operations other than war.⁶¹ It also provided an overview of the Army's fundamentals of Army operations, which consisted of nine warfighting principles; defining the elements of combat power; outlined combat functions; and examined the Army's role in joint operations.⁶² This manual was augmented by TRADOC Pamphlet 525-5, *Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations into the 21st Century*.⁶³ General Sullivan stressed the importance of the pamphlet, stating it would be the document "that tells us how the entire Army must change – from foxhole to the factory – top to bottom."⁶⁴ General Frederick Franks stated that Pamphlet 525-5 "is not doctrine, rather a document of ideas – for it is ideas that lead change for the Army. Ideas expressed in a coherent concept lead to experiments and discovery, resulting in continued mission accomplishment for our Army today and into the future."⁶⁵ Both generals felt that the initiatives the Army was taking, beginning with the revising of FM 100-5, would not only "transform" the Army, but would also lead the joint community, as well in their own "transformation."⁶⁶ Other doctrine would build upon these two documents.

The Army also refined its training system during this period. Army training at the institutional level was closely tied to the revisions of Field Manual 100-5, *Operations*, addressing the Army's mission to defeat multiple threats and its role as a power-

⁶¹ Field Manual 100-5 *Operations* (June 1993), iv.

⁶² Field Manual 100-5 *Operations* (June 1993), 2-0 – 2-24.

⁶³ TRADOC Pamphlet 525-5 *Force XXI Operations* (U.S. Training and Doctrine Command, Fort Monroe, VA, 1 August 1994).

⁶⁴ TRADOC Pamphlet 525-5 *Force XXI Operations* (U.S. Training and Doctrine Command, Fort Monroe, VA, 1 August 1994), Forward. This is highlighted in an opening letter from General Sullivan, endorsing the importance of the manual.

⁶⁵ TRADOC Pamphlet 525-5 *Force XXI Operations*, Preface.

⁶⁶ Colonel Gregory Fontenot (U.S. Army, Retired), LTC E.J. Degen (U.S. Army), and LTC David Tohn (U.S. Army), *On Point: The United States Army in Operation Iraqi Freedom* (Ft. Leavenworth, KS: combat Studies Institute Press, 2004), 7.

projection force.⁶⁷ The manual focused the Army's training on deploying and rapidly dealing effectively with any crisis. The imperative to be "Trained and Ready" for completing any mission was emphasized in Field Manuals 25-100, *Train the Force* and FM 25-101, *Battle Focused Training*. To meet this goal, the Army developed the Combined Arms Training Strategy (CATS). CATS became the Army's tool for planning training events and developing the resources required for units to train, primarily at home station. CATS provided an interface with other systems, such as combat developments and training aids, devices, simulators, and simulations (TADSS), helping units to train to the Army standard. Finally, the Army continued to refine the combat training center program. Training facilities were enhanced at the Joint Readiness Training Center (JRTC), which moved from Fort Chaffee, Arkansas, to Fort Polk, Louisiana.⁶⁸ The Army also made major investments to upgrade the CTC's instrumental battlefield capabilities, helping ensure that units employed modern combat systems in accordance with published doctrine. These refinements also provided greater fidelity to force-on-force, tactical engagements.

The Army's institutional approach toward leader development developed through two different means: simulations and unit-level training events, such as rotations to the CTCs. Simulations facilitated command post exercises were used to train division and corps commanders and their staffs, as extensions to the training conducted at the CTCs, through a program called the Battle Command Training Program (BCTP). This was a two-part program that trained active component division and corps staffs every two years and Army National Guard division staffs every three years.⁶⁹ The first part of BCTP consisted of seminars focused on training staff components in mid-to high-intensity conflicts. This instruction was followed by a computer-simulated command post exercise. The BCTP gave the Army a relatively low-cost training instrument for its senior tactical staffs. The BCTP would be later modified to accommodate the development of brigade and battalion commanders, primarily those who were part of the

⁶⁷ Chapter 4, Structuring and Training the Force, 41. Field Manual 100-5, *Operations*, did not change any tactical doctrine that was centered on the AirLand Battle Doctrine of the late 1980's.

⁶⁸ Chapter 4, Structuring and Training the Force, 51.

⁶⁹ Field Manual 25-101 *Battle Focused Training*, D-2, and <http://www.army.mil/aps/97/CH2.htm>.

enhanced brigades and Force XXI.⁷⁰

At the unit level, leader development primarily focused on training requirements that came from two sources: MACOM requirements and doctrine. The MACOMs developed requirements in support of their actual combat missions. Units rotating into these theaters would train to the requirements dictated by the MACOM. Leaders trained their units to support a variety of missions, using doctrine, as a guide. Leader development also changed, as the Force XXI doctrine was introduced and the leader-to-led ratios were increased. Leaders were trained to handle the new capabilities of the information systems, and new missions, such as OOTW and joint and multi-national operations.⁷¹

Finally, in March 1994, Sullivan announced that the Army was beginning to transform itself into the Army of the 21st Century, or commonly known as “Force XXI.” In July 1994, General Tommy Franks was succeeded by Brigadier General David Ohle. The LAM at this juncture, had begun to foster a receptiveness to change among the Army’s leaders and to engage those leaders in deciding what was important for the institution’s corporate future. Sullivan’s use of the LAM Task Force had prepared the Army for making this change by integrating TRADOCs Battle Labs, support of other Army senior leaders, and emerging technology to prepare it for this change.⁷² The changes initiated by the LAM, altered the Army’s institutional approach to modernizing itself by gaining support of senior experienced leaders; by changing the acquisition process for securing new technology; and by using interactive simulations to conduct testing, training, planning, and mission rehearsal exercises.⁷³ However, shortly after General Sullivan’s successor General Dennis Reimer became Chief of Staff on 1 July, 1996, the LAM Task Force was disbanded, as Reimer believed it served its purpose of changing the Army’s institutional practices.

Prior to his selection as the Chief of Staff, Reimer served under Sullivan as his deputy for two years, followed by two years as the Commander of U.S. Force Command (FORSCOM). A key member of the LAM Board of Directors, Reimer was instrumental

⁷⁰ John Romjue, *TRADOC Annual Command History 1994*, Chapter 4 Doctrine. <http://www.tradoc.army.mil/historian/pubs/chap4.htm>, (Accessed 25 March 2013).

⁷¹ John Romjue, *TRADOC Annual Command History 1994*, Chapter 4 Doctrine.

⁷² James L. Yarrison, *The Modern Louisiana Maneuvers*, 49-50.

⁷³ James L. Yarrison, *The Modern Louisiana Maneuvers*, 93.

in supporting many of Sullivan's initiatives during the maneuvers and assisted in providing units under his command to support Sullivan's concepts in the field.⁷⁴ During his tenure, he carried on many of the initiatives started by Vuono and Sullivan, such as broadening the capabilities of C4I systems to include surveillance and reconnaissance, thus renaming it C4ISR. By adding these additional capabilities, C4ISR enabled the Army to answer questions, such as "*where am I?, where are my buddies?, and where is the enemy?*" Turning to TRADOC's commander, he relied on General William Hartzog to assist him in answering these questions and seeking his visionary leaders to continue changes in the Army. Reimer also used information gathered from LAM Task Force concepts of Force XXI and the series of GHQs to continue the transformation of the Army from a "threat-based" force to a "capabilities-based" force designed for the full combat spectrum.⁷⁵ Reimer's decision to disband the LAM Task Force, coincided with the reductions in Force XXI computer simulations, and an increased "in the dirt" training exercises, or Advance Warfighting Experiments (AWE), conducted by units at the NTC, to evaluate digitization of organizations up to division level.⁷⁶

General Erik Shinseki followed Reimer as Army Chief of Staff. He worked to change the Army into a capabilities-based force. Shinseki consolidated the efforts of Vuono, Sullivan, and Reimer using their Force XXI concepts and digital technologies to develop an Interim Force Stryker Brigade Combat Team (SBCT), requiring further changes in doctrine, training, leader development, and organization.⁷⁷ C4ISR and precision munitions were two initiatives within the SBCT and Force XXI units with which Shinseki continued seeking improvements. However, due to the attacks of 9/11 and the Iraq war in 2003, Shinseki's initiatives for changing the Army were slowed. To overcome these constraints, he built upon training initiatives, such as Central Command's (CENTCOM) Intrinsic Action, ensuring brigade-size units could deploy into a theater rapidly and draw from pre-positioned equipment. One unit, 2nd Brigade, 3rd Infantry Division deployed to Kuwait, drew from the pre-positioned equipment, and prepared to

⁷⁴ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 139.

⁷⁵ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 140.

⁷⁶ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 149.

⁷⁷ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 237. The Army would only field three SBCTs during the wars. Many brigades would continue to change from their Legacy, Force XXI, to Objective Force, Brigade Combat Teams.

conduct combat operations.⁷⁸ Shinseki would also turn to the BCTP, initiated by Vuono and Sullivan, to conduct a series of simulations, called Joint Exercise Internal Look, to prepare CENTCOM leaders and staffs and perfect war plans for combat operations in Operation Iraqi Freedom.⁷⁹ Internal Look provided a series of simulated training exercises for Generals Tommy Franks, McKiernan, and Shinseki, to evaluate carefully selected general officers they wished to lead principal staffs. The institutional change started during Sullivan's LAM, continued to influence Shinseki, as he continued making organization, doctrine, leadership, and training changes within the Army, further preparing it for the coming war.

In short, the Modern Louisiana Maneuvers validated General Sullivan's assessment that the ARSTAF and supporting agencies lacked the ability to mobilize, train, deploy, sustain, and redeploy a force-projection Army on a global-scale. Throughout the 1990s, the Army continued its transformation from its large, Cold-War force structure to a force fit to fight in the 21st century. Through the use of computer simulations and combat training centers, the updating of doctrine, the introduction of new information technology, and many other initiatives, General Sullivan's LAM Task Force structured a series of initiatives that noticeably enhanced the Army's ability to conduct major combat operations and changed its institutional approach for preparing units for 21st century warfare. Leaders, such as Generals Reimer and Shinseki, continued to change the Army using many of Sullivan's initiatives; and the Army would soon test these changes during Operation Iraqi Freedom.

Consequences

Almost a decade after General Sullivan's Modern Louisiana Maneuvers, the Army conducted its first large-scale combat operations Operation Iraqi Freedom (OIF), building on initiatives evaluated and tested during his General Headquarters exercises. During the initial stages of OIF, many of the initiatives improved the operations at the

⁷⁸ Colonel Gregory Fontenot, LTC E.J. Degen, and LTC David Tohn, *On Point: The United States Army in Operation Iraqi Freedom*, 29.

⁷⁹ John Sloan Brown, *Kevlar Legions: The Transformation of the U.S. Army, 1989-2005*, 231. This was crucial, as CENTCOM was now to be involved in commanding operations in two simultaneous combat operations, Operations Enduring Freedom and Iraqi Freedom.

strategic, operational, and tactical levels. For example, they increased the ability of the ARSTAF, AMC and USTRANSCOM to move supplies, personnel, and equipment into theater using “total asset visibility” systems, while maintaining support to simultaneous operations in Afghanistan. Four of these initiatives will be highlighted: digitization of the Army’s C4I systems; realistic training using the CTCs; mobilization of forces to support two theaters of war; and leader development.

The Army’s enhanced ability to support two simultaneous operations, an area that General Sullivan found to be lacking during the GHQx 93 maneuvers, was put to the test during OIF and Operation Enduring Freedom (OEF). The ARSTAF provided this support in a variety of measures, ranging from pre-positioning of equipment and supplies, to conducting support for special operations forces (SOF). The most significant Army effort was the mobilization of the reserves. After the events of 9/11, through the beginning of OIF, the Army was supporting combat operations in Afghanistan, its mission in Korea, and numerous smaller missions in 120 other countries. To reduce the stress of the Army’s active component divisions being deployed to both theaters, the Army activated approximately 149,000 Army Reserve and National Guard personnel to support the Global War on Terrorism and to deploy in support of the smaller operations in other countries.⁸⁰ However, the mission of the reserve components changed from their primary role of defending the U.S. against terrorist attacks to training units and personnel to augment combat operations in OIF and OEF.

At the operational level, through the use of digitization, General Tommy Franks, commander of Central Command, and General David McKiernan, commander of 3rd Army and Combined Forces Land Component Command (CFLCC), commanded the Army as it conducted its invasion into Iraq. As noted earlier, General Franks was instrumental in General Sullivan’s LAM Task Force, identifying new technology to enhance the Army’s ability to clear the “fog of war” and provide better situational awareness for commanders. These systems were called the Army Battle and Command System (ABCS), consisting of 11 digital C4I subsystems, allowing the Army to coordinate a variety of battlefield functions, ranging from maneuver and fires, to

⁸⁰ Anthony Cordesman, *The Iraq War: Strategy, Tactics, and Military Lessons*, 211.

intelligence and digital terrain and logistical support.⁸¹ Enhanced information systems enabled General Franks to command forces both in Afghanistan and Iraq simultaneously. They also allowed General Franks to delegate authority to General McKiernan, as the CFLCC in Kuwait for the Iraq War and at times make direct operational decisions concerning the advance of forces into Baghdad, such as the 2nd Brigade, 3rd Infantry Division's "Thunder Run" into Baghdad conducted, from 5 April to 10 April 2003.⁸²

At the tactical level, one of the most significant and successful combat operations conducted during the initial stages of the invasion was Thunder Run II, an attack by the 2nd Brigade, 3rd Infantry Division, commanded by Colonel David Perkins. This operation indicated the value of the training conducted through the use of simulations, rotations at the NTC, and CPX's. The 2nd Brigade's Thunder Run was proposed by COL Perkins to Major General Buford Blount, commander of 3rd Infantry Division, both of whom saw the early occupation of Baghdad as being feasible because of the tempo of fighting up to that point in the war.⁸³ COL Perkins guidance to his brigade was "to enter Baghdad for the purpose of displaying combat power, to destroy enemy forces – and to simply show them that we can."⁸⁴ His brigade conducted "Thunder Run II" into Baghdad to secure three intersections along Highway 8 leading into Baghdad and ensure supply routes stayed open. 2nd Brigade's "run" into Baghdad resulted in little contact with Iraqi armored forces. It did, however, face thousands of *Fedayeen* militiamen, who were poorly trained, poorly equipped, and used poorly coordinated tactics.⁸⁵

The run represented an example of leadership's maintaining situational awareness even though the command and control capabilities were diminished. At one point during its assault into Baghdad, the brigade's tactical operations center (TOC) was struck by an

⁸¹ Colonel Gregory Fontenot, LTC E.J. Degen, and LTC David Tohn, *On Point: The United States Army in Operation Iraqi Freedom*, 60-62.

⁸² John Keegan, *The Iraq War* (New York: Random House, Inc., 2004), 195.

⁸³ John Keegan, *The Iraq War*, 195 and Colonel Gregory Fontenot, LTC E.J. Degen, and LTC David Tohn, *On Point: The United States Army in Operation Iraqi Freedom*, 341.

⁸⁴ David Zucchine, *Thunder Run: The Armored Strike to Capture Baghdad* (New York: Atlantic Monthly Press, 2004), 13. The "Thunder Run" concept was derived from its use during the Vietnam War, where the use of tanks and armored vehicles were used at high speeds to clear roadways used by U.S. supply convoys. The combined use of speed and high volumes of fire to draw enemy fire by these armored columns were commonly known as Thunder Runs.

⁸⁵ David Zucchine, *Thunder Run: The Armored Strike to Capture Baghdad*, 65, and John Keegan, *The Iraq War*, 196. Both authors emphasized that the current U.S. armor doctrine was being challenged, stating that doctrine suggested that tanks were ineffective in urban warfare. However, the accuracy and speed of armor forces actually prevailed against the tactics and equipment being used by the *Fedayeen*.

Iraqi missile, cutting off communications from the brigade to its subordinate units and higher headquarters. Combat operations were shifted to the brigade's tactical command post (TAC) under COL Perkins, who stated "I never anticipated anything this big."⁸⁶ During CTC rotations, it was common for the TOCs to be attacked, limiting the capabilities of the headquarters to exercise command. Such interruptions required commander and staff officers to respond effectively to new situation and continue to operate effectively, while also working to reestablish command capabilities.

Realistic training structured and conducted at the operational and tactical levels of war prepared corps and division staffs and digitally enhanced brigades for future combat operations. The combat training centers for many of the newly organized brigade combat teams and command post exercises that developed division and corps leadership both contributed to the Army's ability to subdue the Iraqi Army. During the late 1990s the CTCs modified their training to resemble the environments in which the Army would be conducting small-scale operations, yet they also maintained the requirement to handle major contingencies. The CTCs ensured that training was realistic, which prepared forces to deal with enemy innovation and tactical defeat.⁸⁷ The BCTP also modified its simulations by adding civilians to the battlefield, developing more complex scenarios, and placing greater emphasis on Special Operating Forces (SOF). Commanders of enhanced modular brigades participated in these simulations, acting, as an extension of the division and corps CPXs. Training was not restricted to the CTCs, but also included actual events, such as Central Command's (CENTCOM) Intrinsic Action. This operation served two purposes: to show continued commitment to the defense of Kuwait; and to solidify the Army's reception, staging, onward movement and integrations (RSOI) initiative to deploy a brigade-sized element to Kuwait. When the 2nd Brigade Combat Team (BCT), 3rd Infantry Division, arrived in Kuwait, it drew pre-positioned equipment and conducted desert training exercises.⁸⁸ This training contributed to the success of in

⁸⁶ David Zucchine, *Thunder Run: The Armored Strike to Capture Baghdad*, 65; and John Keegan, *The Iraq War*, 166; and Anthony Cordesman, *The Iraq War: Strategy, Tactics, and Military Lessons*, 107. The Brigade TOC took a direct hit, causing numerous casualties. COL Perkins then command the fight on the ground, while controlling air support, artillery, and communications from his location.

⁸⁷ Anthony Cordesman, *The Iraq War: Strategy, Tactics, and Military Lessons*, 175.

⁸⁸ Colonel Gregory Fontenot, LTC E.J. Degen, and LTC David Tohn, *On Point: The United States Army in Operation Iraqi Freedom*, 29. It is key to note that 2nd BCT, 3rd ID is highlighted here is an example of a Heavy Brigade Combat Team, that would take part of this training event. However, 2nd BCT, 3rd ID later

sustaining constant combat operations for over 20 days, limiting accidents, and conducting effective joint and combined arms warfare.⁸⁹ Lieutenant General David McKiernan, then commander of the Coalition Forces Land Component Command, stated “I will tell you why the coalition was so decisive in this campaign to date was we have the military capability, training, leadership, and equipment that makes us decisive.”⁹⁰

The initiatives developed by General Sullivan and continued by Generals Reimer and Shinseki, to change the Army’s doctrine, training, organizational structure, and leader development, prepared it to conduct major combat operations during OIF. Early in OIF, success was seen in the ability of leaders and units to conduct operations, such as Thunder Run; the planning for logistical support for units conducting operations into Baghdad; and ability of the ARSTAF to support simultaneous operations, validating the visionary efforts of Sullivan’s LAM. Despite these notable successes, the Army failed in being prepared for the shift in major combat operations to that of irregular warfare in 2004. The Army was unprepared for the shift in tactics by the Iraqis. Its reliance on technology, training, and doctrine for major combat operations failed to make it successful against primitive bombs, guerrilla-style ambushes, and other insurgency activities.⁹¹ Additionally, the Army had no experienced organizations, leaders, or staffs prepared to secure a post-war Iraq and conduct nation-building activities. As the Army experienced these changes in OIF, units in combat eventually adapted to the type of warfare they had to conduct, relying on the training they received during rotations at the CTCs. However, the ARSTAF took longer to adapt in recognizing that it would have to mobilize additional forces to replace those already in theater; adjust the conduct and structure of training; revise and implement new doctrine; and identify leaders to implement the initiatives needed to combat the new threat.⁹²

conducted the same procedures in arriving into Kuwait, drawing the equipment from the pre-positioned equipment and conducted operations into Iraq and Baghdad.

⁸⁹ Anthony Cordesman, *The Iraq War: Strategy, Tactics, and Military Lessons* (Washington D.C.: The CSIS Press, 2003), 174.

⁹⁰ Anthony Cordesman, *The Iraq War: Strategy, Tactics, and Military Lessons*, 174. LTG McKiernan was the commander of all the ground forces in the early stage of OIF. The Army was an integral component of the ground campaign.

⁹¹ Michael Gordon and General Bernard Trainor. *Cobra II: The Inside Story of the Invasion and Occupation of Iraq* (New York: Pantheon Books, 2006) 499-503.

⁹² Anthony Cordesman, *The Iraq War: Strategy, Tactics, and Military Lessons*, 499-503.

Conclusions

The Modern Louisiana Maneuvers changed the way the Army prepared for future war; and in terms of major combat operations, they did so effectively.⁹³ General Sullivan used the Modern Louisiana Maneuvers as his device to “gain the imagination of the senior people in the Army to enable them to see the process that we would use to move ourselves forward.”⁹⁴ Senior Army leaders, such as Generals Vuono and Frederick Franks, who shared Sullivan’s vision of change, assisted him in establishing the momentum needed for reforming the Army to meet 21st century challenges.

General Sullivan’s Louisiana Maneuvers were developed to change the Army’s Cold War mentality to embrace a broad-based, comprehensive, overhaul of Army doctrine, forces, and modernization programs.⁹⁵ He accomplished this by establishing the LAM Task Force, to work with senior Army leaders and supporting agencies to investigate emerging technology, to respond to operational concerns of the MACOMs, and to coordinate with supporting simulation centers. The LAM Task Force was, in short, General Sullivan’s instrument for making changes in leader development, training, force structure, and information technology.

General Sullivan and the LAM Task Force were also instrumental in the development of three General Headquarters exercises, all of which were used to train the ARSTAF to support multiple theaters of war with limited resources. By aligning exercises, GHQx 93, GHQx 94, and GHQx 95 with actual training exercises being executed by the MACOMS and with computer-simulated CPXs, the ARSTAF enhanced its ability to anticipate predict future requirements in a resource-limited environment. The first exercise, GHQx 93, identified the inability of the ARSTAF to manage two theaters of war simultaneously. The next two exercises provided more detailed results, as the ARSTAF demonstrated a better understanding in predicting requirements, such as early mobilization of reserves, pre-positioning of equipment, and determining force requirements to support two theaters of war – one major regional contingency (MRC) and one lesser regional contingency (LRC). The exercises also helped the Army to evaluate

⁹³ Mark Sherry, *The Army Command Post and Defense Reshaping, 1987 – 1997* (Washington D.C.: U.S. Army Center of Military History, 2008) 116.

⁹⁴ “An Oral history transcript of General Gordon R. Sullivan”, interviewed by Colonel David Ellis and Col John Dabrowski, eds., *An Oral History of General R. Sullivan*, 267.

⁹⁵ Mark Sherry, *The Army Command Post and Defense Reshaping, 1987 – 1997*, 110.

new technology, such as information systems, prior to further expenditure of resources, by using simulations to evaluate those systems' potential effectiveness. The results of the exercises led to equipping units for participating in rotations at the National Training Center (NTC).

Simultaneously, TRADOC, under the command of General Frederick Franks, updated capstone Army doctrine, such as *Field Manuals 100-5 Operations, 25-100 Training the Force* and *25-101 Battle Focused Training*, changing the Army's training programs, at the *institutional, unit, and self-development* levels. The changes prescribed in the manuals provided guidance to leaders on how to develop and evaluate training at all levels, using training standards and task listings to enhance unit combat effectiveness. At the institutional level, the use of CTCs enabled the Army to train brigade-sized units for a variety of missions, preparing for major combat operations, as well as conducting humanitarian support operations, in locations such as Somalia, Haiti, and the Balkans. The BCTP was also an effective program to provide command-post exercises for developing corps and division staffs. Doctrine also provided the guidelines for unit-level training and evaluation through the use of small field training exercises (FTX) and the Army Training and Evaluation Programs (ARTEP).

A decade after General Sullivan's Modern Louisiana Maneuvers, the Army was engaged in support to major conflicts and supporting over a hundred small-scale operations in other countries. Training events presented opportunities for the Army to mobilize, train, deploy units, and continue updating doctrine, such as FM 100-5 *Operations*. The ARSTAF worked to ensure the Army was prepared for any contingency by continuing to rotate units through MACOM training events and CTCs; mobilizing Reserve and National Guard units to augment Active components; ensuring that units experienced realistic and rigorous training events at the CTCs; and placed special emphasis on leader development at the Brigade and below. All of these areas were tested and implemented by leaders and units such as COL Perkins, commander of 2nd BCT, 3rd Infantry Division, during their Thunder Run into Baghdad.

General Sullivan's attempt to initiate change in the Army was successful in that many of his initiatives were institutionalized over the next decade. The use of the LAM enabled Sullivan to break the Army's functional organizations and incorporate a series of

Battle Labs to help anticipate and experiment desired changes, forcing in a more holistic and innovative approach.⁹⁶ Sullivan envisioned that the Army had to move in the direction of being a farsighted, innovative, and learning organization to handle the current evolution and unpredictability of both world events and technology that potentially would lead to changes of its doctrine, organizations, or equipment.⁹⁷ The LAM also presented series of General Headquarter exercises, for the ARSTAF to try to anticipate scenarios reducing the Sullivan's concerns of "No more Task Force Smiths." They did not, however, prepare the Army for a war that leaders had *not* envisioned. The Army paid a high price in blood, treasure, and credibility from 2004-2006 as it struggled to adapt to the complexities of irregular war. The moral of this story is that in times of strategic ambiguity, the Army must broaden its intellectual aperture in envisioning the types of war for which it prepares.

⁹⁶ Colonel Gregory Fontenot, LTC E.J. Degen, and LTC David Tohn, *On Point: The United States Army in Operation Iraqi Freedom*, 7.

⁹⁷ James L. Yarrison, *The Modern Louisiana Maneuvers*, 93.

CHAPTER 4

CONCLUSIONS AND IMPLICATIONS

In place of reading history we must study it – that is, we must think over the relationships between the items which go to build it up, and from observation and reflection arrive at a decision regarding them.

J.F.C. Fuller

Conclusions

Michael Howard's three imperatives for preparing an Army for war are that: during peacetime the army must not expect that preparing for the next war will occur on its own; that experience from past hostilities is easily lost; and without some idea as to what the future of war will be, training, technology, and doctrine may not prepare the force to conduct operations effectively. Visionary leaders such as Generals Marshall and Sullivan used the Louisiana Maneuvers of 1941 and the Modern Louisiana Maneuvers of the early 1990's to address all three of Howard's imperatives.

George C. Marshall transformed the World War I-era Army into a relatively proficient fighting force prior to World War II in the largest peacetime maneuvers in American history, known as the Louisiana Maneuvers. Working to support President Roosevelt's Protective Mobilization Plan, the maneuvers helped the Army to prepare itself for future combat operations in North Africa. Marshall's personal experience of the Army's uneven leadership, training, and performance during the Muese-Argonne campaign guided his decisions to establish the maneuvers. To implement his intent, he turned to another visionary leader, General Lesley McNair. General McNair and his General Headquarters staff structured a series of maneuvers designed to provide realistic combat conditions to train the mobilizing Army progressively from small-unit tactics to army-versus-army, large-scale maneuvers; to evaluate leaders; and to assess the need for organizational changes. The maneuvers also established a series of doctrinal and institutional changes for the Army's approach to conduct training. McNair created a series of new doctrine under *Field Manual 21-6, List of Publications for Training*, establishing guidelines for mobilization, training, and technical instruction. Additionally,

the maneuvers demonstrated to the Army the requirement for large training areas to facilitate large-scale maneuvers. For example, some of the 2.4 million acres of training areas used during World War II would become the modern-day combat training centers seen today.

The maneuvers enabled the Army to identify experienced leaders, update doctrine, and change organizations to combat German forces more effectively than they would have without the maneuvers. Leaders such as General Patton excelled during the maneuvers, demonstrating their ability to command new armored formations and think beyond doctrine to obtain success. However, many officers did not demonstrate the same ability, resulting in General Marshall relieving thirty-one of the forty-two division, corps, and army commanders participating in the maneuvers. McNair used the maneuvers to evaluate the effectiveness of new anti-tank doctrine and the change from square to triangular divisions. The consensus from the maneuvers was that the anti-tank and organizational changes would require experienced leaders to adapt to the new doctrine and employ it in combat. The maneuvers provided Marshall with a test bed to evaluate new doctrine, weed out poor leaders, and experiment with new equipment, preparing the Army for combat against German forces, the first being the North Africa Campaign.

The North Africa campaign of 1942 tested the ability of American forces against German armor, partially validating General Marshall's and McNair's Louisiana Maneuvers initiative to prepare units for combat. Initial success against the Vichy French, during the 1st Armored Divisions landing during Operation Torch, led American forces to believe that their doctrine, leadership, equipment, and training during the maneuvers prepared them adequately for combat. However, after suffering heavy losses at Kasserine Pass, many leaders believed that American forces were still not properly trained, poorly equipped, and lacking adequate leadership. Generals Marshall and Eisenhower relieved only two prominent leaders, Generals Lloyd Fredendall and Orlando Ward, who participated in the maneuvers but failed to prove competent in combat. The Army quickly adapted to the tactics used by German forces and eventually secured Northern Africa from Germany. Overall, the maneuvers instilled confidence in leaders' ability to command large bodies of troops, implement new anti-tank and armor doctrine,

and new equipment that was used during their first campaign in World War II.

Decades later, General Sullivan, using Marshall's concepts for preparing the Army for war, initiated the Modern Louisiana Maneuvers, which sought to prepare the Army for 21st century warfare. Sullivan's Modern Louisiana Maneuvers would become his device to change the Army's Cold-War mentality for preparing for war. Unlike Marshall's use of large training areas and vast resources to test new doctrine, equipment, and leader development, Sullivan, was limited in his resources and relied on a series of Battle Labs, developed by TRADOC, to evaluate emerging technology and associated doctrine. Building upon initiatives undertaken by General Carl Vuono, Sullivan developed a Louisiana Maneuver (LAM) Task Force to interact with several General Officer Working Groups (GWOG) and other supporting agencies, to further develop the initiatives and seeking to change the Army's institutional approach for modernization and training. Sullivan's concern was that the Army had to be prepared for the next war and wished to avoid experiencing another "Task Force Smith".

General Sullivan, in conjunction the LAM, used the General Headquarter Exercises (GHQx) to evaluate the ARSTAF's military strategic capability to mobilize and deploy the Army to meet the demands of a global power. The exercises were conducted in three separate venues, each combining real-world requirements, as well as simulated, to determine the ARSTAF's ability to support two simultaneous operations. They also provided a venue for testing and evaluating new and emerging information technology and initiatives, such as "total-asset visibility," "own-the-night," and global-positioning. These initiatives were integrated into specially equipped units for further testing at the combat training centers, further moving the Army toward the Force XXI concepts. The exercises demonstrated that the ARSTAF required better practices for planning, mobilizing, and supporting two simultaneous major combat operations.

In addition, TRADOC worked to change doctrine, develop leaders, train units, and test new organizations to prepare the Army for future combat. General Frederick Franks worked to update doctrine designed to train the army in the institutional, unit, and self-development venues. TRADOC focused on three specific field manuals, FM100-5, *Operations*, FM 25-100, *Training the Force*, and FM 25-101, *Battle-Focused Training*, to

provide the Army guidance at each level. Institutional training focused on the development and use of combat training centers (CTC), to facilitate the evaluation of brigade and battalion-sized maneuvers, and the Battle Command Training Program (BCTP), providing simulated exercise to train and evaluate division and corps commanders and staffs. At the unit level, training was prepared and conducted, by using a series of mission-essential task lists designed for divisions and brigades to evaluate their subordinate units' combat effectiveness. Finally, the self-development level training focused on the training of individuals at the basic and advanced training, followed by leadership development training, and the roles of commanders at the unit level.

Generals Sullivan's and Frederick Franks' initiatives worked quite well to prepare the Army for major combat operations but did not prepare it for occupation duties or COIN operations. Following Sullivan, Generals Reimer and Shinseki continued to move the Army toward the Force XXI concepts envisioned during the LAM. They built upon the modernization of information systems, organizational structure, doctrine, and leaders to conduct major combat operations through the use of simulations and training exercises at the CTCs and other operations supporting MACOMs. The invasion of Iraq in 2003 validated the initiatives started in the LAM concerning the Army's ability to conduct major combat operations. The use of information systems by Generals Tommy Franks and David McKiernan enabled them to command forces in Iraq and Afghanistan simultaneously. The 2nd Brigade, 3rd Infantry Division, used its CTC experiences to prepare it for operations in Iraq, specifically its Thunder Run mission into Baghdad. But in the aftermath of what first appeared to be a spectacular victory, the Army was not ready to reconstruct the country whose Army it had destroyed and whose ruling regime it had replaced. Nor was it prepared to counter an increasingly lethal insurgency. At the tactical level, units eventually adapted to the new threats. The ARSTAF took even longer to adapt to the situation, as it had to structure and conduct new training, develop new technology and doctrine, and identify and train leaders for conducting and supporting the new combat missions.

The structure and conduct of the Louisiana Maneuvers of 1941 and Modern Louisiana Maneuvers of the 1990's prepared the Army for the conducting combat operations. Both maneuvers provided the Army a mechanism to evaluate its combat

effectiveness; evaluate new doctrine and technology; train the Department of the Army leadership for the planning of simultaneous combat operations, and determine the Army's ability to mobilize forces for the wars of their time and for potential future wars. However, there were some specific similarities and differences in how they structured and conducted peacetime maneuvers, preparing the Army for war.

First, both maneuvers were structured to provide training and evaluation of small-unit to corps level formations. The Army instituted training programs designed to train individuals and small units on basic combat tactics before integrating them into larger units, such as battalions and brigades. General McNair structured the 1941 maneuvers as a series of exercises designed for commanders to train their divisions and corps in large-scale training areas. General Frederick Franks trained corps and division staffs, using the Battle Command Training Program (BCTP) and combat training centers. A significant difference in the structure of the maneuvers was the training of field armies and the Army Staff (ARSTAF). McNair's maneuvers specifically were designed to train and evaluate the ability of commanders to lead large formations and conduct army-on-army maneuvers. This required the large training areas, such as was seen in Louisiana and east Texas. The General Headquarter exercises were focused on the training the ARTAF in their ability to plan and manage two major combat operations simultaneously.

Second, the conduct of both maneuvers emphasized realism. During the 1941 maneuvers, emphasis was placed on making units experience the stress of combat without actually firing a shot. The large maneuver space allowed for commanders to command their units, as well as providing the troops an environment to experience the fog of war, which included simulated combat losses; logistical issues, and engagements against enemy forces. During the 1990 maneuvers, emphasis was placed on the ability of the ARSTAF to manage and plan the support of simultaneous operations, by combining the simulated exercises with real-world exercises. The BCTP provided division and corps commanders and staffs scenarios of battling large armies, such as the Iraqi forces seen in Desert Storm. Emphasis was placed on rotating units through real-world deployments in training events such as Intrinsic Action, training brigade combat teams in RSOI operations. Additionally, many of the new technological advances being evaluated

in simulations were later implemented into CTCs and tested in real force-on-force maneuvers.

Marshall and Sullivan faced significantly different amounts of strategic ambiguity. Marshall faced almost none. Although he was incapable to predict where the Army would fight the Germans first, he knew it would fight the Germans. And he knew how the Germans fought. This allowed Marshall and McNair to meet Howard's test of being "not too badly wrong" when the U.S. Army encountered the Wehrmacht in 1942. General Sullivan's strategic situation in 1991 was significantly more complex. In the post-Cold-War era, he had no idea whom the Army would fight next. He and those he worked with had no implicit assumption it would be another relatively capable and modern army. They used the Modern Louisiana Maneuvers of the 1990s to build an army that could win a Desert Storm-type war was better, faster, and at less expense. This Army proved its mettle in the lightning-like campaign to topple the Ba'athist regime in Iraq. But it struggled badly in preparing occupation duties and countering an insurgency.

Implications

Army Chief of Staff, General Ray Odierno, stated that, "we want an Army that can deliver at many speeds, many sizes and for many missions. We are going to align force to each combatant commands so they know they are available. They will be trained in a way to meet some of the demands culturally and understand the operational environment in the region."¹

The manner in which future wars are fought will be defined by the hybrid nature of their threats. Hybrid threats consist of a range of different modes of warfare including conventional capabilities, irregular tactics and formations, terrorist acts, and criminal disorder.² The Army will face hybrid warfare against states, non-state actors, and state-sponsored actors.

¹ "Odierno Pushes BCT Revamp, 4 Must-Have Programs," *Army Times*, 5 November 2012, 27.

² Frank Hoffman. *Conflict in the 21st Century: The Rise of Hybrid Wars*, Arlington: Potomac Institute for Policy Studies, December 2007, 8.

The Army must consider how it will support strategic policies of rebalancing from the Middle-East to the Asian-Pacific region. Joint Doctrine, such as the *Capstone Concept for Joint Operations: Joint Force 2020* indicates the Army will not fight alone, but as part of the joint force in a new concept called *globally integrated operations*. This concept states that Joint Force elements, globally postured, combine quickly with each other and mission partners to integrate capabilities fluidly across domains, echelons, geographic boundaries, and organizational affiliations.³

The Army must continue to view the past, such as the Louisiana Maneuvers of 1941 and Modern Louisiana Maneuvers of the early 1990's, as methods of how to conduct peacetime maneuvers and prepare the Army for future war. The maneuvers present two unique and effective approaches of using peacetime maneuvers to train units and staffs at all levels – small units to Department of the Army staff; evaluate and test new doctrine and technology; identify and evaluate experience leaders; and change the institutional approach for preparing the Army for war.

Arguably, the complexity and uncertainty of future warfare falls between Carl von Clausewitz's "Fog of War" and Michael Howard's "Fog of Peace." The complexity and uncertainty of future warfare will challenge the Army, as it continues to prepare itself the uneven strategic challenges of the 21st century.⁴ The February 2010 *Quadrennial Defense Review Report* (QDR) states "the distribution of global, political, economic, and military power is becoming more diffuse."⁵ Nations such as China – the world's most populous state and India – the world's largest democracy are contributing to changing the international environment, and the U.S must consider how it will maintain its influence in promoting stability in the unforeseen environment.

When one combines the challenges of an uncertain future with the insights from the past, three imperatives become fairly obvious.

First, the maneuvers of both 1941 and the early 1990s demonstrated the

³ *Capstone Concept for Joint Operations: Joint Force 2020*, Joint Chiefs of Staff, Washington, D.C., 10 September 2012, iii.

⁴ TRADOC Pamphlet 525-3-0, *The Army Capstone Concept, Operational Adaptability: Operations under Conditions of Uncertainty and Complexity in an Era of Persistent Conflict, 2016-2028* (U.S. Training and Doctrine Command, Fort Monroe, VA 21 December 2009), 9.

⁵ Quadrennial Defense Review Report, February 2010, iii.

importance of Army to prepare units at all levels – small units up to the Department of the Army Staff (ARSTAF). The last decade has shown that the Army conducts operations at multiple levels ranging from squad to brigade-sized operations; leaders command divisions and corps; and the ARSTAF was required to plan, manage, and support two simultaneous major regional conflicts. The Army institutionally has prepared itself to continue training units up to brigade-size at the CTCs and division and corps with the BCTP. However, the Army must plan for how it will continue to prepare the ARSTAF and supporting agencies to be prepared to handle the next war and its ability to adapt to changes in war.

Second, the Army must maintain realism in future maneuvers. The Army will not know when the next war will be fought, however it has predicted that it will be a hybrid in nature. Capturing lessons learned from the last decade, has shown that the Army must be prepared to conduct multiple forms of combat, ranging from large-scale, force-on-force operations, to counterinsurgency operations, to nation-building. As the war ends in Afghanistan, the Army will be in transition and rebuilding of its force for the next war. As the Army begins to align divisions to support specific Combatant Commands (COCOMs), the CTCs will need to adapt their training to match the operational environments in which the divisions will support. The ARSTAF must also be evaluated and trained in realistic exercises, enabling them to maintain their ability to plan, manage, and support future Army requirements.

Third, the strategic ambiguity about the future will require the Army to prepare for multiple types of war. The lack of ambiguity in 1941 demonstrated preparing for a war in which the Army was specifically focused on German forces. The Army of 2003 was exceptionally well prepared to fight major combat operations but poorly prepared for occupation duties and COIN. The Army cannot afford to prepare itself for just one type of war, as OIF demonstrated it could not effectively handle changes in the type of war it was fighting.

If the Army neglects the requirement to conduct peacetime maneuvers or if it fails to structure and conduct them accordingly to the guidelines noted above, it will risk failing when the Nation next calls it to arms. But if the Army has a comprehensive set of

realistic exercises conducted in widely ranging scenarios, it will stand a good chance of being “not too badly wrong” when the shooting starts.

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